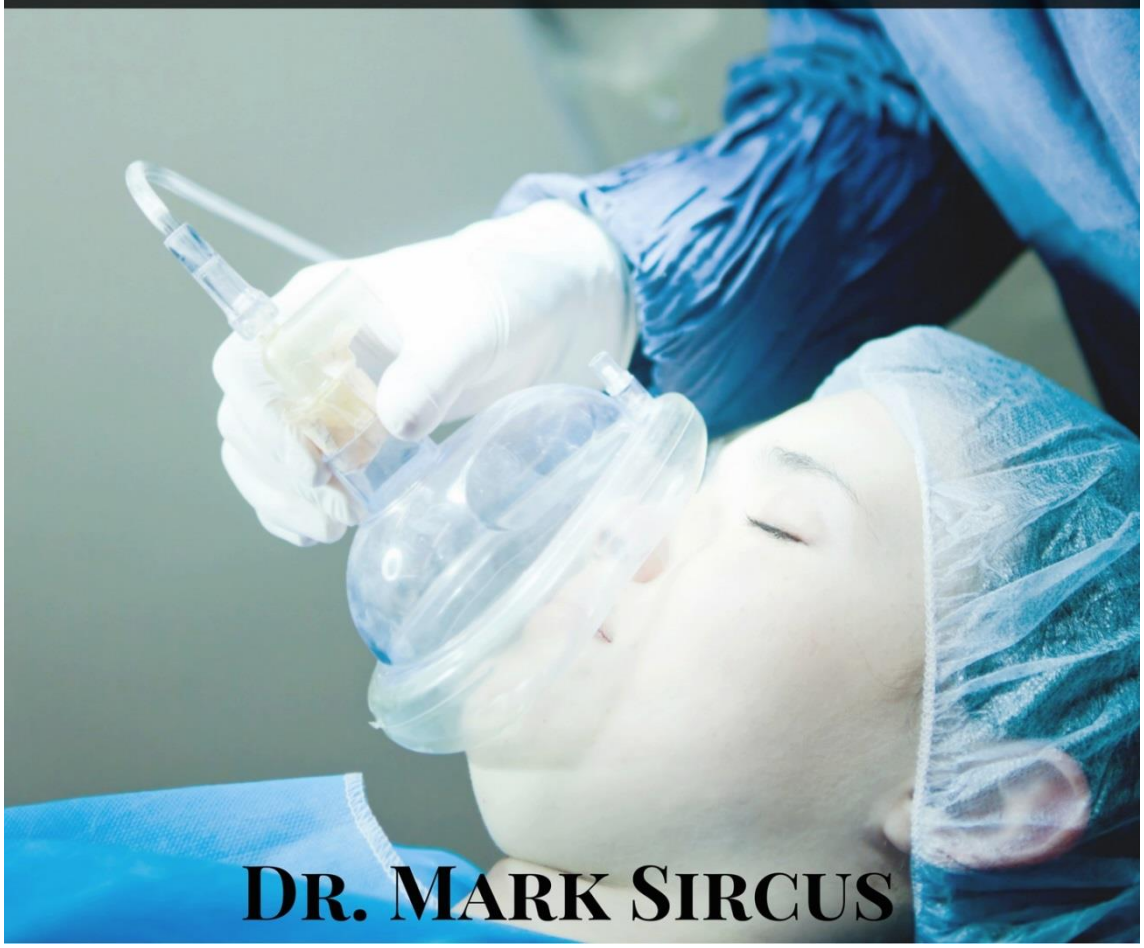
Hydrogen Medicine

Combining Oxygen with Hydrogen and CO_2



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Introduction

Modern medicine is about to discover how brilliant, safe and effective it can be. Molecular hydrogen brings a revolution in medicine, one that every doctor and patient will be interested in. The science is irresistible and mounting clinical experience is pointing to hydrogen as the strongest, simplest and safest medicine in existence. After experimenting with the toxic pharmaceuticals, heavy metals and radiation over the last century we now find hydrogen gas and hydrogen water making headway into the mainstream of medicine where it is already saving lives.

The hydrogen gas cavalry is arriving just in time for many who are not keeping up with their health challenges and their medical costs. Those whose needs are the greatest will benefit most from hydrogen because it penetrates the mitochondria, DNA and to every extremity in the body. Already accepted in Japan and China, the pure fuel that sends rockets into space has been found to be exceedingly useful in the world of medicine.

Doctors are just learning that hydrogen can be provided as a medicine, a lifesaving medicine. Emergency room doctors, ambulance paramedics and intensive care doctors will be the first to understand the real importance of hydrogen. Instead of just adding a little oxygen they will be applying hydrogen, oxygen and making sure CO2 levels raise as well.

Good thing these gasses are freely available, cannot be patented and are easily made in our own homes. Hard research sustains the view that hydrogen is a medicine of the future that has arrived today and when combined with oxygen will save people even when they are on their death beds.

Hydrogen to the Rescue

What is the first thing the fire department does when its trucks arrive at a fire? They pull out the hoses, connect to the hydrants, and pour tons of water onto the nastiest fires. In the medical world, the equivalent is hydrogen, which too can be flooded into a dying body to put out the flames of inflammation and oxidative stress. In the future, hydrogen will become as important in hospitals as oxygen.

As you shall see throughout this book, molecular hydrogen (H_2) functions as an extensive protector against oxidative stress, inflammation and allergic reactions.[i] Molecular hydrogen is a medical gas that can be dissolved in water and administered through drinking, inhalation, transdermally, used in baths, and by intravenous drip (IV). Molecular hydrogen has proven useful and convenient as a novel antioxidant and modifier of gene expression where oxidative stress results in cellular damage.

Hydrogen is qualified to cross the blood brain barrier, to enter the mitochondria, and "even has the ability to translocate to the nucleus under certain conditions," reports Dr. Brandon J Dixon in *Medical Gas Research*. Because of its size, molecular hydrogen can do a lot of things larger molecules of known antioxidants can't. Once in these ideal locations of the cell, previous studies have shown that hydrogen exerts antioxidant, anti-apoptotic, anti-inflammatory, and cytoprotective properties that are beneficial to the cell.

There are no safety issues with hydrogen; it has been used for years in gas mixtures for deep diving and in numerous clinical trials without adverse events. There are no warnings in the literature of its toxicity or long-term exposure effects.

Even though oxygen is prescribed as a medicine in hospitals, it is an essential nutrient that we breathe 24/7 and so is hydrogen and carbon dioxide, though we make plenty of CO2 in our bodies if we exercise enough and are not breathing too fast. Yet nothing will be able to compete with hydrogen in terms of healing power for it underpins everything, not only in our physical bodies but in the universe. However, at the level of the three primary gases, which are the most essential ingredients of life, one simply cannot talk about one without the others and certainly the most brilliant medicine will incorporate all three in practice.

Hydrogen will quickly change the landscape of a person's presenting condition and that is why doctors in the west are beginning to take notice. With its potent and unique antioxidant properties, gene regulatory abilities, and rapid rates of diffusion across tissue and cellular barriers, as well as its excellent safety record, hydrogen has many unique characteristics that make it very valuable for utilization in medicine and health. Its systemic properties and excellent penetration abilities allow hydrogen to be effective under conditions of poor blood flow and other situations that limit many other types of systemic treatments.

Hydrogen protects us from harm

Hydrogen helps protect us from the cellular damage caused by increasing radiation, chemical and heavy metal exposure. It will also offer some level of protection from the oxidative stress caused by cell phones, Wi-Fi and all the EMF pollution that is increasingly plaguing us. And it will protect us from the negative side effects of pharmaceutical medicines, chemotherapy and radiation doctors use to treat cancer.

The first report demonstrating the benefits of drinking hydrogen water in patients receiving radiation therapy for malignant tumors affirms how helpful hydrogen is for radiation exposure. This finding provides the foundation for a clinically applicable, effective, and safe strategy for the delivery of hydrogen gas to mitigate radiation-induced cellular injury.[ii] In an increasingly radioactive world and with doctors using more radiation to diagnose and treat disease than ever hydrogen will be life saving for many.

The Fire of Life

Just like every sun needs mountain ranges of hydrogen every minute to run themselves, humans too run on hydrogen, so supplying a lot more, in the form of molecular hydrogen gas and water, ignites a fire in us. A healing fire that medical scientists believe is even good for impossible to cure diseases like muscular dystrophy and many other diseases that modern medicine has failed to find answers for.

Though medical scientists focus on the antioxidant implications of hydrogen, finally having a powerful enough fire truck to put out the nastiest oxidative fires, we see and will present chapters dedicated to hydrogen as a fuel, not only for our rockets and cars but also for the mitochondria in our cells.

It is the fire of life that gets stimulated and if one needs healing that fire will be directed exactly to the place it is most needed. It is a perfect fire that is created when hydrogen is administered with oxygen. Perfect in that it burns coolly because hydrogen is the perfect antioxidant.

We can create a flawless hydrogen flame by balancing the three gases so that the mitochondria fire up their production of ATP. With sufficient hydrogen the mitochondria will burn without oxidative prejudice because the hydrogen is putting out the fires of oxidative stress even though it is the fuel that lights the fire.

Hydrogen is one of the primordial elements that fueled the development of all life on Earth. Human beings cannot live without hydrogen. While science refers to us as carbon-based life forms, man is also a hydrogen-based life form. When plants absorb sunlight, they store negatively charged hydrogen ions through the process of photosynthesis. When you eat unprocessed plants, your body’s cells utilize the nutrients in those plants with the electrical charge of the hydrogen ions. When your body burns hydrogen and oxygen, it generates the energy you need to live.

All living things must have hydrogen to sustain life. The human body must breathe to get oxygen, and must eat and drink to get hydrogen. The primary sources of hydrogen ions for the human body are fresh uncooked plants, fruits, vegetables, and water. Now we can inhale it directly in the form of molecular hydrogen gas and that gas can also be dissolved in water, so we can drink it and doctors can inject it.

Hydrogen First

Doctors and everyone else needs to understand that we flood the body with hydrogen, oxygen and carbon dioxide as a first course of action. We already know that properly used medical gases can change patients presenting condition in emergency situations. However, conditions that have not responded to oxygen will respond if hydrogen is added to the mix.

There is no medical mystery here. Deep sea divers know all about this. At the deepest depths hydrogen is life. As we shall see in the following chapter on medical gases many lessons can be learned about hydrogen from the field of hyperbaric medicine. Doctors in this field know all about medical priorities and first course of action when a diver comes up too fast and gets the bends. The first thing of course is to put them in a pressure chamber.

These doctors also have it down pat with using hydrogen as the ultimate preventive medicine. The deeper divers go the more stress/pressure they are under. The deeper they go the more hydrogen needs to be in their tanks and interesting enough the less oxygen.

Hydrogen is new to intensive care treatment as it is to the entire world of modern medicine. However, once we see that hydrogen belongs right up on top with oxygen in intensive care we understand why hydrogen belongs in first place in most protocols for the treatment of everything. It would be hard indeed to think of something hydrogen would not be good for.

Hydrogen is also the perfect anti-aging medicine, which will eventually find itself everywhere and the women will go crazy over it when they find out what it will do to their skin. Actually hydrogen is already everywhere there is life. Life is not possible without hydrogen.

Full Medical Protocol

This book will deal with H2, O2, CO2, H2O, O3 (Ozone) and even singlet oxygen, which is a temporary state of highly energized oxygen. Notice that carbon is included. For a fuller protocol all we have to do is add sulfur, magnesium, iodine, selenium, potassium, bicarbonates and sodium. Then we have the main ingredients necessary for life or to save lives. Though hydrogen and magnesium are fundamental to pain relief medical marijuana needs to be added to this list of essentials in dealing with cancer and every other disease.

Getting Religious about Medical Science

Everything on this list is a gift from God, even carbon dioxide that often misunderstood gas that is so essential to life. All the substances above are essential ingredients to life that make the best medicines. Toxic drugs will no longer be needed by doctors if they follow a hydrogen led protocol. In the case of hydrogen medical trumpets of truth will sound. There is just too much good science in consensus about hydrogen being the most outrageous medicine that will turn contemporary medicine upside down, so it can start doing things right.

New Advances in Gas Therapy

Combining Oxygen with Hydrogen and CO2

Ambulance crews have often regarded oxygen as something approaching a wonder drug. Oxygen has always been a lifesaving treatment and now doctors and patients can do much more lifesaving because they will be able to give oxygen in combination with hydrogen. This will have a strong impact on the future practice of medicine.

Just a few short years ago I introduced, in my book *Anti-Inflammatory Oxygen Therapy*, a new form of therapy that allows for unlimited oxygen to be administered safely. In fifteen minutes one can open the cells allowing them to detoxify as they gulp down high levels of oxygen. I wrote that this therapy will help many people pull out of chronic situations where they have not been able to do so before.

This form of therapy is ideal, especially for patients who can exercise, and thus increase their chances of not dying from cancer, because it generated massive amounts of CO2 while breathing concentrated oxygen. Doctors have to have it hammered into them that oxygen is best administered and utilized when there is plenty of CO2 around.

Hydrogen medicine is arriving and now medicine can be what it is supposed to be. Hydrogen, Oxygen and Carbon Dioxide (CO2) make up a holy medical trinity, which together can perform wonders with patients if one knows how to use them correctly. Fortunately it is easy to balance the three gases and everyone will be able to do it at home as well as in clinics and hospitals and even in ambulances.

Actually it is necessary to have this simple technology available at home on a daily basis, not only for continuity of treatment, but as an inexpensive effective preventive medicine, perfect anti-aging medicine as well as a great help when a person gets the flu and is worried about complications and death. No vaccine needed!

We are all under stress, which is increasing because pollution is going up, radiation levels are going increasing, climate change is intensifying, economies and financial systems threatening, and broad based conflict in societies that cannot agree on anything. And that’s not to say anything about other environmental stresses like cell towers, cell phones and Wi-Fi. To a significant point hydrogen will protect us from a lot of the

effects of stress so again we make it a point that this technology needs to be in the home available to the entire family since we all need protection from life's harms and we have a holy trinity of gases that will do that for us and our loved ones.

Hydrogen allows the body to function and breathe under Stress

Hydrogen allows the body to function and breathe under stress! That is a medical mouthful so read it again. You are literally going to be taken into deep territory but one that is completely understandable. I am talking about deep sea diving and all the lessons about mixing gases we can learn from hyperbaric medicine.

The United States Navy developed procedures allowing dives between 500 and 700 metres (1650 to 2300 feet) in depth, while breathing gas mixtures based on hydrogen, called hydrox (hydrogen-oxygen) or hydreliox (hydrogen-helium-oxygen).

Although the first reported use of hydrogen seems to be by Antoine Lavoisier (1743–1794), who had guinea pigs breathe it, the actual first uses of this gas in diving are usually attributed to trials by the Swedish engineer, Arne Zetterström in 1945. Breathing mixture of 96% hydrogen and 4% oxygen he was able to dive deeper than anyone before.

Hydreliox is breathing gas mixture of helium, oxygen and hydrogen. For the Hydra VIII mission at 50 atmospheres of ambient pressure, the mixture used was 49% hydrogen, 50.2% helium, and 0.8% oxygen. Because hydrogen is the lightest element, it is easier to breathe than nitrogen under high pressure.

It is hard to imagine a more stressful situation than being under 50 atmospheres of ambient pressure. Obviously marine scientists figured out a long time ago what hydrogen can be used for and now the rest of us will. If hydrogen can keep us alive under great stress 2000 feet down at bone crushing depth think of what it can do if one is on their death bed or just suffering from a chronic disease or cancer.

Medical Gases

Heliox is a breathing gas composed of a mixture of helium (He) and oxygen (O2). Heliox is a medical treatment for patients with difficulty breathing. The mixture generates less resistance than atmospheric air when passing through the airways of the lungs, and thus requires less effort by a patient to breathe in and out of the lungs.

Heliox has been used medically since the 1930s, and although the medical community adopted it initially to alleviate symptoms of upper airway obstruction, its range of medical uses has since expanded because of the low density of the gas.

Oxygen is the most prescribed nutritional drug in hospitals and now molecular hydrogen is dawning in the world of medicine. Through the Bohr Effect,[iii] medical scientists have known for a century how important and useful carbon dioxide (CO2) is as a medicine. However, hydrogen allows for quicker healing and recovery than when oxygen and CO2 are only used. When it comes to CO2 it is good to get it out of our heads the bad propaganda on CO2 as a waste product or warming gas. Linking of

carbon dioxide levels moving from 0.028% to 0.04% of the atmosphere with global warming and/or "climate change" is purely imaginary.

Multiple organ dysfunction syndrome (MODS) is a leading cause of mortality in critically ill patients. Hyperoxia (oxygen) treatment is beneficial to critically ill patients, however, the clinical use of hyperoxia is hindered as it sometimes exacerbates organ injury by increasing reactive oxygen species (ROS). Both CO2 and hydrogen reduce the toxicity of oxygen, so it is wise indeed to conceive of the future practice of medicine centered on these three gases used as one.

Hydrogen gas (H2) exerts a therapeutic anti-oxidative effect by selectively reducing ROS, this is one of its main effects and why hydrogen is perfect companion to oxygen. One of the key studies on hydrogen sustains the view that hydrogen and oxygen inhalers belong everywhere in the world of medicine and health, including in ambulances and intensive care departments. Better yet they belong in every home being the best investment one can make in one's health.

> Combination therapy of H2 and hyperoxia has previously been shown to significantly improve survival rate and reduce organ damage extent in mice with polymicrobial sepsis.[iv]

Medical gases trigger naturally occurring physiological responses, enhancing the human body's preventive and self-healing capabilities. Medical gases include carbon dioxide, oxygen, nitrogen, nitric oxide, helium and most recently hydrogen. Medical gases can be used on their own or in combination for therapeutic effect or as an insufflation during surgery.

Nitric oxide is a gas that is inhaled. It works by relaxing smooth muscle to widen (dilate) blood vessels, especially in the lungs. Nitric oxide is used together with a mechanical ventilator to treat respiratory failure in premature infants. Increased levels of CO2 also dilate blood vessels while positively affecting the oxygen disassociation curve from the red blood cells. Molecular hydrogen (H2) has been accepted to be an inert and non-functional gas in our body but this is not correct since H2 reacts with strong oxidants such as hydroxyl radicals in cells and exhibits other extensive effects.

Pediatric and neonatal patients have an assortment of physiologic conditions that may require adjunctive inhaled gases to treat the wide variety of diseases. Inhaled nitric oxide, helium oxygen mixtures, inhaled anesthetics, hypercarbic mixtures, hypoxic mixtures, and hydrogen have been used to alter physiology in an attempt to improve patient outcomes.

Carbon Dioxide and Bicarbonate Medicine

Dr. Gerald Pollack, one of the premier water experts in the world, also stresses the importance of pH in the cells. pH means everything to a cell's water life. "Turns out that the thickness of water depends on the pH. If you increase the pH, we found that regions of structured water get thicker." Part of this book is dedicated to pH Medicine because

so much of cell physiology is dominated by pH. *Sodium Bicarbonate* is the incredible medicine it is exactly because it so easily turns into CO2. Just add stomach acid or lemon in the cup of bicarbonate water and watch the bubbles form

Low carbon dioxide levels (low bicarbonates in the blood) is life threatening but usually in a backhanded way. When we are low in CO2 (from breathing too fast or lack of exercise) we are low in O2 because of negative changes in the oxygen disassociation curve, which has everything to do with how oxygen jumps on and off red blood cells.

According to Annelie Pompe, a prominent mountaineer and world-champion free diver, alkaline tissues can hold up to 20 times more oxygen than acidic ones. We really have no reference in the medical literature to sustain these numbers, but we do know that acidic conditions (below pH of 6.5-7.0), make cells lose their ability to exchange oxygen, which cancer cells just love. Researchers have found that an increase of 1.2 metabolic units (oxygen consumption) was related to a decreased risk of cancer death, especially in lung and gastrointestinal cancers.

Acid pH is measured in terms of charged hydrogen atoms. Molecular hydrogen, on the other hand, is neutral and, because of its lack of charge, can penetrate cells and every nook and cranny of the body easier than much smaller electrons, which carry a charge, which cells walls resist.

Sick people tend to be low in CO2/bicarbonates and thus in oxygen:

- We are a global society of shallow breathers, lacking exercise and stimulation of our respiration, circulation and detoxification systems. This is resulting in the degradation of the quality of our lives and health.
- Lack of oxygen in the body is the root cause of thousands of maladies, including pain and inflammation. Diseases thrive in oxygen poor environments.
- Cancer thrives in oxygen poor environments.
- Humans need oxygen to provide nutrients and energy to all of the cells in their bodies. 99% of diseases cannot live in an oxygen rich environment.

One of the most instant and inexpensive ways to alkalinize the body is to administer sodium bicarbonate which instantly turns to CO2 in the stomach driving bicarbonates into the blood; raising O2 levels because alkaline tissues and fluids retain and utilize more oxygen.

Second way would be to slow the breathing down by using the Frolov breathing retraining device. This too would raise CO2 levels dragging O2 up with it. Later chapters delve deeply into the world of carbon dioxide and its close relationship with oxygen and other chapters will deal extensively with healthy breathing, which is more important to health than most realize.

At the State Institute of Further Medical Education, in Kiev in 2001, researchers showed that elimination of hyperventilation and hypocapnia (low CO2 levels) in patients with breast cancer after the completion of the special treatment led to increased three-year survival rate, better quality of life, including released fear of unfavorable outcomes of

the treatment, improved working ability, easier social adaptation and relief of edema of upper extremities.[v]

Combining Hydrogen with Oxygen

"Molecular hydrogen therapy combining with oxygen therapy or fluid resuscitation can reduce oxygen free radical damage, the amount of fluid and vasoactive drugs, and the overload of liquid. As a result, molecular hydrogen therapy may reduce the complications of oxygen therapy and fluid resuscitation."

Combining molecular hydrogen gas with oxygen is the basic practice put forth in this book with the addition of increasing CO2/bicarbonate levels in the blood. It is medically bold enough to present *Hydrogen Medicine* as a new breakthrough in medical science but to do it in the context of other gases offers a quantum leap in medical practice. Talking about all three gases at once, because they are inseparable, will stretch medical minds in new dimensions. However, it is only three things, three substances, though carbon is also present in the form of CO2.

Drs. from China have found:

> Hyperbaric oxygen (HBO) therapy through breathing oxygen at the pressure of above 1 atmosphere absolute (ATA) is useful for varieties of clinical conditions, especially hypoxic-ischemic diseases. Because of generation of reactive oxygen species (ROS), breathing oxygen gas at high pressures can cause oxygen toxicity in the central nervous system, leading to multiple neurological dysfunctions, which limits the use of HBO therapy. The data showed that H2 promoted the cell viability and inhibited the damage in the cell and mitochondria membrane, reduced the levels of lipid peroxidation and DNA oxidation, and selectively decreased the levels of OH. These results indicated that H2 effectively reduced OH, protected cells against oxygen toxicity resulting from HBO therapy, and had no effect on other ROS.[vi]

Everything a doctor is trying to achieve with their patients no matter what the condition will be facilitated with these gases administered in combination, which is easy to do with a hydrogen inhalation machine that is designed to administer both gases. Just add carbon dioxide delivered through oral administration and transdermal baths of sodium bicarbonate as well as through the use of a slow breathing machine. You can now enjoy and benefit from the best medical science has to deliver right in the comfort of your own home.

Hydrogen is Serious Medicine

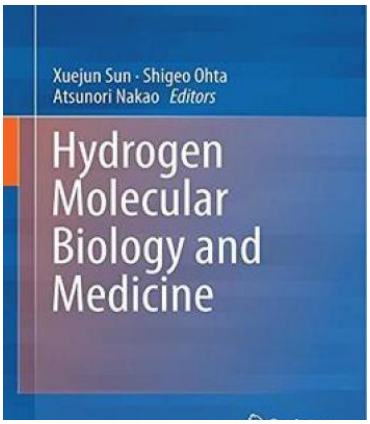
Prof. Masaru Suzuki, from the Department of Emergency and Critical Care Medicine at Keio University Hospital said that, “H2 will become a gas medicinal product which will have a big impact in the field of **cardiopulmonary resuscitation**. Research is moving fast across the world and it will eventually become a combined international investigation. If this H2 inhalation therapy works with cardiopulmonary arrest, it would mean that **even under the most severe conditions this treatment is effective**. I think the potential for H2 in medical uses will spread endlessly on the back of this medical research.”

In a study published in the Journal of Stroke and Cerebrovascular Diseases, Hydrogen Gas Inhalation Treatment in Acute Cerebral Infarction was safe and effective. These results suggested a potential for widespread and general application of H2 gas.[vii] The medicinal value of hydrogen was ignored prior to research illustrating that inhalation of 2% H2 can significantly decrease the damage of cerebral ischemia/reperfusion caused by oxidative stress via selective elimination of hydroxyl freebase (OH) and peroxynitrite anions (ONOO-).

Hydrogen promotes survival of retinal cells. The results of one study demonstrated that post conditioning with inhaled high-dose H2 appears to confer neuro-protection against retinal I/R injury via anti-oxidative, anti-inflammatory and anti-apoptosis pathways.[viii] Hydrogen is a miracle when all your eye doctor can suggest is anti-oxidants and you are going blind.

> "Yesterday I went to my eye doctor. I had told her about molecular hydrogen a few months ago and the relationship between oxidative stresses, in particular the hydroxyl radical, and age - related macular degeneration and glaucoma, cataracts. Yesterday she compared pictures of my retina and was amazed. Not being knowledgeable about the eye, I did not understand the terms she used but I could see that the retina surface was smooth now without an uneven surface. One bump that was obvious had disappeared totally. She wants me to come back in another month as part of a study she wants to write about," wrote Bill Johnston.

Hydrogen is effective in terms of its power to bring people back from the edge of life like magnesium does when a person is experiencing cardiac arrest. What magnesium does for the heart in such moments hydrogen, when taken orally and by inhalation simultaneously, can save any distressed part of the body and body parts being eaten alive by cancer.



Drs. Sun, Ohta, and Nakao, in their book *Hydrogen Molecular Biology and Medicine*, the first of its kind, write, "Inert gases are not useless or dispensable for human survival;

instead, they are indispensable component of the gas medium to maintain life. To maintain the oxidation–phosphorylation energy metabolism, which is essential to life, the inhaled gas must contain a certain proportion of oxygen. But if the partial pressure of oxygen is too high or even pure oxygen, then it will cause damage to the body or even death since the presence of excessive oxygen is toxic to the body."

These doctors go on importantly to say: "According to the research, hydrogen shows a protective effect in multiple diseases. For instance, malignant carcinoma, colitis, encephalopathia after carbon monoxide poisoning, cerebral ischemia, senile dementia, Parkinson's disease, depression, spinal injury, skin allergy, diabetes type 2, acute pancreatitis, organ transplantation, intestinal ischemia, systematic inflammation reaction, radioactive injury, retina injury, deafness, etc."

These doctors affirm that because the molecular weight of hydrogen gas is low, the permeability of hydrogen gas is very strong. "It can penetrate rubber and latex tube at room temperature and can penetrate metal films such as palladium, nickel, and steel at higher temperatures." So we can imagine hydrogen spreading throughout your body getting to every cell and especially to those areas which need the healing power of hydrogen the most.

The more difficult or dire the medical circumstance the more helpful hydrogen seems to be. Hydrogen is perfectly suitable for intensive care wards (ICUs) and emergency rooms where medicines have to act fast. According to the above authors, "The acoustic speed of hydrogen is fast. Under standard condition the acoustic speed of air is 331 m/s, helium's acoustic speed is 972 m/s, while the acoustic speed of hydrogen is 1286 m/s."

Molecular hydrogen, contains two protons and two electrons, is neutral so it does not take up as much space electromagnetically as negatively charged electrons meaning it would slip into cells more easily than electrons, which are much smaller. The cell will resist any charge but not hydrogen so these small neutral molecules of hydrogen will get into the cell and into the mitochondria with ease and with speed where they do a whole lot of good.

Hydrogen healing molecules can easily come to the rescue riding in on ultra-fast horses. Hydrogen is responsive; it is chemically active as well as energetic and will move like lightening in emergency situations, especially when one combines inhaled hydrogen gas with hydrogenated water.

Hydrogen the Fuel of Life

Hydrogen is the most abundant element in the universe, so there's no chance of human consumers depleting the supply. There are certainly enough oil resources to meet global demand now, but many energy experts predict that the world's supply of oil will be depleted within 60 years or sooner. Hydrogen will save the world in terms of energy and it will save the world of medicine.

According to astrophysicist David Palmer, about 75 percent of all the known elemental matter that exists is composed of hydrogen. The nucleus of a hydrogen atom is made from a single proton, which is a positively charged particle. One electron orbits around the outside of the nucleus. Neutrons, which can be found in all other elements, do not exist in the most common form of hydrogen.

The sun generates its energy by nuclear fusion of hydrogen nuclei into helium. In its core, the sun fuses 620 million metric tons of hydrogen each second. Of course it is not that simple. However, the point is that hydrogen gives life to our sun and all suns leading to the spreading of light all over the universe.

Hydrogen is at the Root of Creation

That is through a good telescope with the star in the middle being the closest one. In reality there is no darkness in space it is so full of light we cannot see it—it is black. If we could see it, it would burn our eyes out. And we are that light. We absorb light and re-radiate like stars and hydrogen is always at the heart of it all.

The first scientist to talk about hydrogen was Dr. Szent-Györgyi who won the Nobel Prize for discovering Vitamin C and its ability to cure scurvy in 1937. Also he won a Nobel Prize for his work identifying the reactions that liberate energy from hydrogen. He explained one of the basic principles of biology: hydrogen and oxygen interact in a delicate balance releasing energy delivering it to cells in tiny portions.

Dr. Szent-Györgyi said: "Hydrogen is, in fact, the only fuel the body knows. The foodstuff, carbohydrate, is essentially a packet of hydrogen, a hydrogen supplier and hydrogen donor, and the main event during its combustion is the splitting off of hydrogen. So the combustion of hydrogen is the real energy-supplying reaction."

He insisted that hydrogen was the fuel of life. Everyone knows we need oxygen to live, but oxygen's counterpart (hydrogen) is the real fuel that burns when there is plenty of oxygen around. Today we are finally seeing hydrogen as a clean burning fuel for our cars.

https://www.youtube.com/watch?v=SrgQ65UsbZ0

In this video we see robot bees can now dive in and out of water using tiny combustible rockets run on hydrogen and oxygen that is taken right out of the water they dive into. Gas fills a chamber in the RoboBee's interior, it's lit by an internal spark, and woosh, it shoots out of the water. What's cleverest about this system is that it actually uses the water itself as fuel. A pair of tiny electrolytic plates convert the liquid into hydrogen, which can then be ignited providing rocket like thrust.

The next generation fuel cell propulsion system announced recently delivers a number of important advances: increased power density, reduced cost, resulting from a combination of a new one-step fuel cell stack sealing process; and extended lifetime. The increase in rated power, without any appreciable increase in size or weight, is a particularly significant development. In addition, these new type of fuel cells offer a 3x increase in mission for drone flying time compared to battery-powered drones.

Hydrogen is the best and most efficient energy carrier ever. It has the biggest amount of energy by weight out of every other combustible gas. Every fuel, be it diesel, gasoline, natural gas, propane, butane, etc. are all carbon chains of a certain length linked together by hydrogen atoms. The length of the chain determine the name and fuel type. Used in conjunction with gasoline into your vehicle hydrogen can act as a catalyst that optimizes the combustion and results in cleaner emissions, reduced fuel costs and reduced oil maintenance.

Water has both the fuel (hydrogen) and oxygen, which provides the fire of oxidation. The word hydrogen comes from the Greek, meaning "water-former." Water is formed when hydrogen is burned (oxidized) by oxygen. It is created every day in our bodies as we burn hydrogen to create ATP. Hydrogen and oxygen participate in a continuous cycle that generates both water and energy.

"**The oxidation of hydrogen in stages seems to be one of the basic principles of biological oxidation**. The reason for it is probably mainly that the cell would not be able to harness and transfer to other processes the large amount of energy, which would be released by direct oxidation. The cell needs small change if it is to be able to pay for its functions without losing too much in the process. So it oxidizes the H-atom by stages, converting the large banknote into small change," writes Szent-Györgyi.

Szent-Györgyi was the first to show that the human body stores hydrogen in many of its organs. He called this 'hydrogen pooling' and he identified the liver as the organ that pools the most hydrogen because it requires hydrogen to neutralize free radicals produced during detoxification. That is what hydrogen does best—neutralize free radicals and combine with them to turn them into water.

Food is a primary source of hydrogen and if it is fresh and uncooked it provides an abundance of hydrogen. The hydrogen in food is tied up in complex molecules that have to be metabolized (broken down) to release the hydrogen. The air we breathe also contains a small amount of hydrogen, which is immediately absorbed into cells and tissues the moment it enters the respiratory tract. The amount found in the atmosphere is less than 1% so really it is not enough to make up the difference if we are deficient.

Hydrogen Bonds are the Foundation to Life

In living organisms, carbon and hydrogen make partners easily. The element carbon has two orbiting layers, called shells, surrounding its nucleus. The outer shell contains four electrons. These four electrons can form separate covalent bonds with other elements, which means that they bond together by sharing electrons. Hydrogen has only one electron to share, so it can bond only once, but up to four hydrogen atoms can bond to one carbon atom.

Hydrogen has some unique properties. Sometimes it shares electrons unequally with an electronegative atom, such as oxygen or nitrogen. When this happens, hydrogen develops a slight positive charge, which attracts other negatively charged particles. Because opposites attract, they bond together without sharing electrons. This is called a hydrogen bond. They are weak but useful in living organisms for forming short-lived connections.

The Miracle of Molecular Hydrogen

Seduced by simplicity, physicists have always found themselves fascinated by hydrogen, the simplest of atoms, which can combine to form the simplest molecule. Hydrogen has shocked, it has surprised, it has embarrassed, it has humbled--and again and again it has guided physicists to the edge of new vistas of thought. Now it is time for hydrogen to do its magic in the field of medicine where it will be used to treat traumatic injury, neurodegenerative disease, inflammatory disease, organ transplantation, metabolic syndrome, diabetes mellitus, sepsis, burn wounds, adverse reactions after chemotherapy, radiation-induced injury, hearing disorders, and preeclampsia.[ix]

Molecular hydrogen has anti-oxidative and anti-inflammatory activities and neuroprotective effects.[x] We see increases in the level of the anti-oxidative enzyme superoxide dismutase (SOD) with hydrogen intake.[xi] Hydrogen-rich saline prevented Aβ-induced neuroinflammation and oxidative stress, which may contribute to the improvement of memory dysfunction in animal studies.[xii]

Looking just to the effects of Molecular Hydrogen we see:

- Neuro-protective
- Improves mood disorders
- Reduces muscle fatigue, motor deficits, and muscle degeneration
- Prevents metabolic syndrome, decreasing levels of glucose, insulin and triglycerides: can treat diabetes
- Antioxidant: prevents brain damage
- Anti-inflammatory

- Protects all organs
- Lowers cholesterol and blood sugar
- Assists in weight loss
- Enhances mitochondrial function
- Has been shown to prevent cancer by reducing oxidative stress and suppressing tumour colony growth
- Has been shown to reduce side effects of cancer treatments
- Boosts skin health
- Enhances wound healing
- Limits damage of transplant organs
- Improves bladder dysfunctions
- Is cardio-protective
- Protects and rebuilds eyes and vision
- Prevents hearing loss
- Combats allergies
- Ameliorates kidney disease
- Protects the liver
- Promotes gut health
- Protects the lungs
- Protects from radiation-induced damage
- Relieves pain
- May prolong lifespan
- Is antibacterial and promotes oral health
- Is non-toxic at high concentrations

Because of mineral deficient soil, pesticides, chemical fertilizers, over-processing of foods, the addition of chemical preservatives, and drinking over-chlorinated and over-fluoridated water, millions of individuals are not getting enough hydrogen and are suffering for it.

When certain chemicals in the body lose an electron, they become positively charged (and are called "free radicals" or "oxidants"). These chemicals roam freely through the rest of the body stealing electrons from other cells. Free radicals damage cellular DNA. The majority of modern science has come to the conclusion that free radical damage in the human body is the cause of aging. Aging is evidence of the damage to millions of the body's cells through oxidation. This oxidation is due to the **lack of hydrogen anions that are available to stop free radical damage**.

Healing Power

Molecular hydrogen is seen to be effective for Rheumatoid arthritis (RA), which is a chronic inflammatory disease in which the progressive destruction of joint causes morbidity. It is also associated with an increased risk of atherosclerosis, which can result in cardiovascular disease and mortality. The therapeutic goal is to **control the systemic inflammation** to obtain not only the remission of symptoms, but also improve general state of health. Consumption of water with a high concentration of molecular hydrogen (4-5 ppm in the water) significantly improves the disease and reduces the oxidative stress in RA.[xiii]

Oxidative stress associated with the production of Reactive Oxygen Species (ROS) has been well documented to underlie the surge in pro-inflammatory molecules and mitochondrial DNA damage apparent in disease; which includes cancer, cardiovascular disease, arthritis, neurodegenerative disease, and aging. Higher levels of hydrogen have been shown to protect DNA against oxidative damage by suppressing single-strand breakage of DNA caused by ROS, protect against oxidative damage to RNA and proteins, and **enhance the anti-oxidizing activity of ascorbic acid by threefold** – a factor crucial in avoiding the pro-oxidant risk of administering a high dose of ascorbic acid.

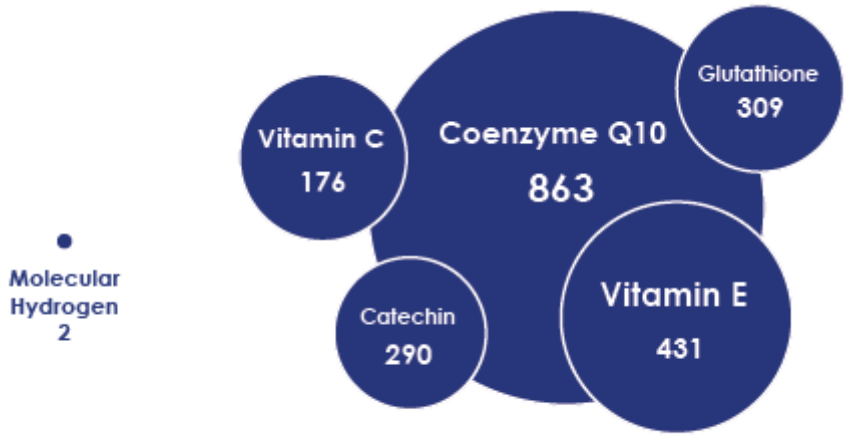
The vast majority of animals and plants are able to synthesize vitamin C, through a sequence of enzyme-driven steps. However, some animals, including guinea pigs and humans, lack the enzyme that is required in the last step of vitamin C synthesis. These species are able to survive with the lower levels available from their diets by recycling oxidized vitamin C. Animals that have the enzyme needed to synthesize of vitamin C do not have the ability to recycle oxidized vitamin C.

Thus, for us humans having a supplement that provides molecular hydrogen in high quantities is going to extend our stores of Vitamin C and this is life enhancement at its best. Molecular hydrogen will create a feedback loop and an updraft that lifts the activity of all antioxidants because an adequate supply of vitamin C enables the regeneration of vitamin E and other antioxidants in the body.

Interestingly, water, which is essential to life, is formed by the combination of oxygen (a powerful oxidizer) and hydrogen (a powerful reducer). It make sense that molecular hydrogen has high-powered therapeutic potential as does water itself. Hydrogen is a novel and innovative therapeutic tool and can be used like intravenous vitamin C therapy except it is vastly less expensive, and can be used every day around the clock—with every sip of water and with an inhaler one can pour hydrogen into the body directly through the lungs.

Each drink of hydrogen water will flush our bodies with trillions of hydrogen molecules. H**2** is an effective molecule to scavenger or pair up with toxic hydroxyl radicals in the body that need to be neutralized. Hydrogen therapy is safe as there is no upper limit of use. The more water you drink infused with hydrogen the better, especially if you have late stage cancer and need to turn things around quickly.

There is no toxicity to H2 because the by-product of the free-radical neutralizing reaction is water. Each molecule of H2 will neutralize 2 hydroxyl radicals into two molecules of H2O hydrating your cells in the process. Hydrogen water at a concentration of 1.6 mg/L would have more "antioxidant" molecules than 100 mg of vitamin C, as there are more total molecules in 1.6 mg of hydrogen compared 100 mg of vitamin C.



Relative Sizes of Antioxidants

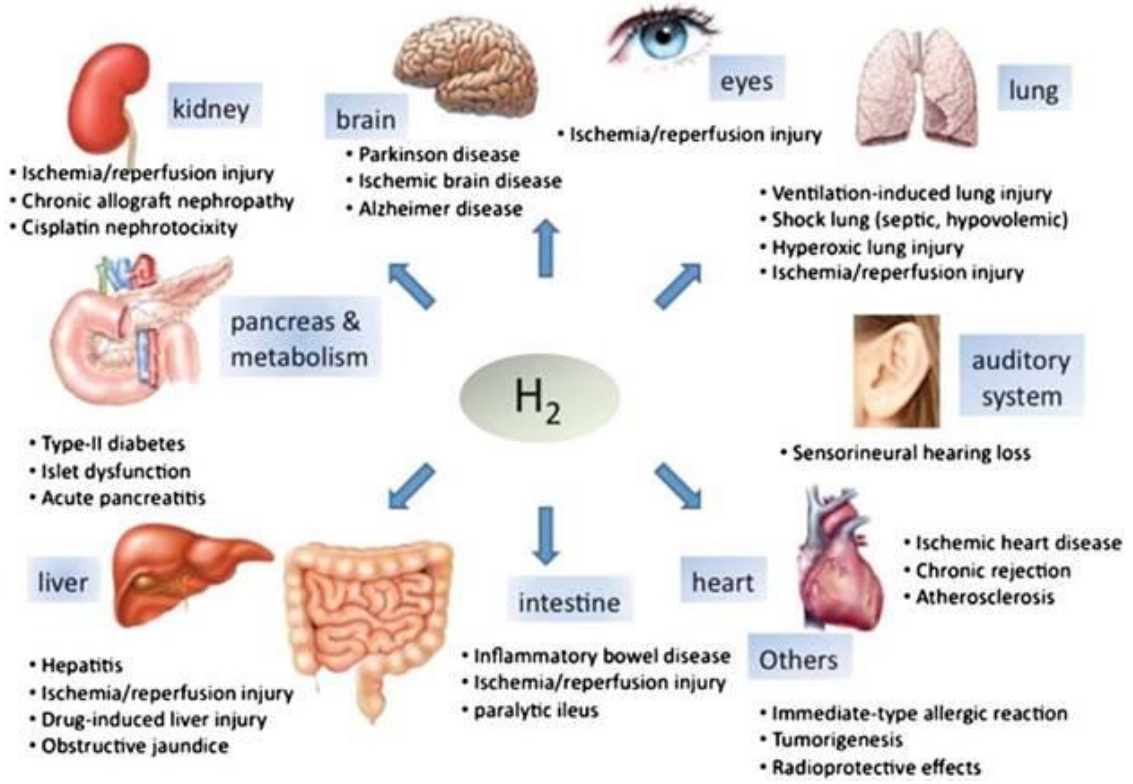
http://primoh2.com/molecular-hydrogen-101/

Molecular hydrogen is a medical leap that is going to help many people. Studies have confirmed that consumption of hydrogen reduces oxidative stress in a diverse range of disorders and organ systems including the digestive, cardiovascular and respiratory systems. There are hundreds of scientific publications that show molecular hydrogen to be therapeutic. Even NASA is researching hydrogen water to protect their astronauts from radiation during space travel.

Hydrogen is intriguing. As explained by Tyler LeBaron, founder of the Molecular Hydrogen Foundation, hydrogen powers the sun's fusion**,** it is key to ATP production within the mitochondria, and it is the father of all other elements. Hydrogen, along with oxygen, has been intrinsically involved with evolution of life in both prokaryotes and eukaryotes (e.g. hydrogenases, hydrogenosomes, mitochondria, etc.). The extremes of oxygen and hydrogen provide balance between oxidation and reduction, which is vital to life. **The most important and basic thing to know about** molecular **hydrogen is that it negates the toxicity of oxygen.**

Hydrogen in the body is mostly bound to carbon, oxygen and nitrogen. It is part of almost every molecule in your body: DNA, proteins, sugars, fats. The hydrogen bond – which forms between atoms that "share" a hydrogen atom, is one of the most important

interactions that make biological molecules behave as they do. Thus, hydrogen is an important factor in the regulation of physiology.



Molecular Hydrogen is an ideal antioxidant molecule for oxidative stress in the mitochondria due to its small size. It is one of the very few, if not only antioxidant molecules that can reach the inside of the mitochondria. H2 directly protects mitochondria that are exposed to reactive oxygen species.

That nasty hydroxyl radical has an unpaired electron, which turns it into an insatiable whirling dervish that cannot be calmed until it stabilizes itself. Robert Slovak, a hydrogen water quality innovator, says, "It will steal an electron from DNA, cell walls, the mitochondria—and it will damage those when it does."

The anti-oxidative stress effect of hydrogen was reported to be conferred by direct elimination of hydroxyl radical and peroxynitrite. Subsequent studies indicate that hydrogen activates the Nrf2-Keap1 system.

Acute oxidative stress induced by ischemia-reperfusion or inflammation causes serious damage to tissues, and persistent oxidative stress is accepted as one of the causes of many common diseases including cancer. H2 selectively reduces the hydroxyl radical, the most cytotoxic of reactive oxygen species (ROS), and effectively protected cells; however, H2 does not react with other ROS, which possess physiological roles. The inhalation of H2 gas markedly suppressed brain injury by buffering the effects of oxidative stress. Thus, H2 can be used as an effective antioxidant therapy; owing to its ability to rapidly diffuse across membranes, it can reach and react with cytotoxic ROS and thus protect against oxidative damage.[xiv]

ROS are involved in metastatic processes including invasion of cancer cells into surrounding primary tumor sites. Generated ROS regulates tumor progression, indicating that ROS is situated upstream in many signaling pathways including the pathway involved in metastasis. At tumor sites, large amount of ROS are produced by activated neutrophils and macrophages in the inflammatory response.

Hydrogen water erases ROS indispensable for tumor cell growth. Scientists who have studied its antitumor effects used hydrogen in combination with hyperthermia at 42°C and found it to be potent as an anti-tumor agent.[xv] Therapeutic opportunities of hydrogen increases in the presence of specific catalysts or heat thus for cancer and other serious diseases it should be used in the context of a full protocol.

Hydrogen, Inflammation and Pain

The cells that are repeatedly exposed to inflammatory mediators will have the genes that code for inflammatory response proteins switched on, and thus be in a constant state of inflammation. This leads to diseases and health conditions that are strongly linked to inflammation, including asthma and cardiovascular diseases. Some of the molecules in the body that can instigate a change in gene expression are: Nf-kB, TNFa, and reactive nitrogen species such as nitric oxide and peroxynitrite.

Hydrogen indirectly affects gene expression through its actions to modulate molecules that have a direct epigenetic effect. Molecular Hydrogen can:

· Impede release of NF-kB

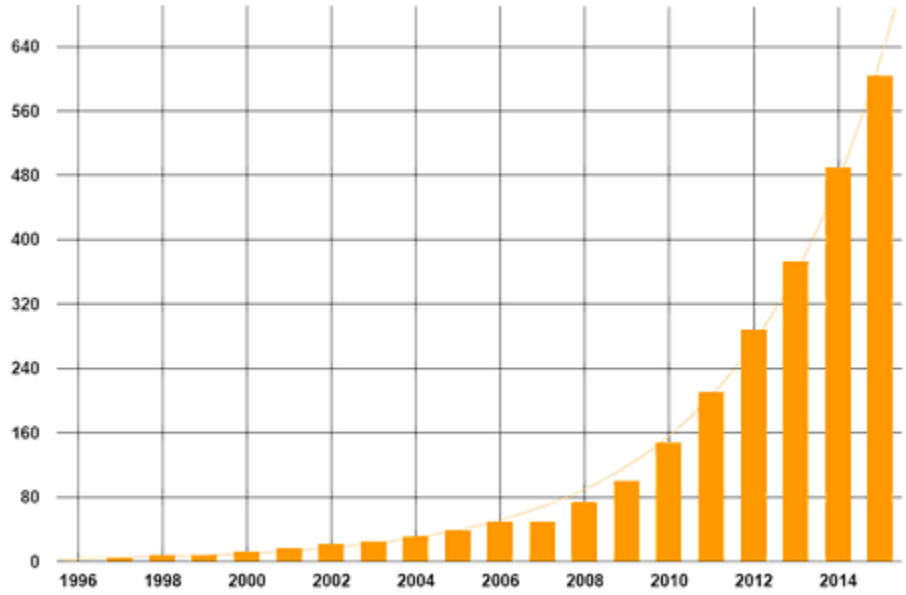
· Reduce TNFa

· Reduce excess nitric oxide

· Scavenge peroxynitrite

Molecular hydrogen has been shown to be an anti-inflammatory in acute conditions, but it is also a potential epigenetic modifying agent for genes that code for chronic pain and inflammation.

Scientific Hydrogen Studies



Therapeutic effects of molecular hydrogen for a wide range of disease models and human diseases have been investigated mostly since 2007. Most studies have been conducted in Japan, China, and the USA. About three-quarters of the articles show the effects in mice and rats. The number of clinical trials is increasing every year. One should take note that almost all the initial research and publications came from Dr. Patrick Flanagan, developer of Megahydrate, who was ahead of the curve in seeing how hydrogen can affect our health.

https://www.youtube.com/watch?v=CboUB_VcTug&t=218s

Hydrogen and Stress

In the middle and the end of this book are sections on stress and its relationship to cancer, sex, breathing, neurological decline and emotional upset. Emotions and stress matter very much in health and medicine though doctors are not trained to help their patients much with these issues. Many have a hard time in recognizing their own stress and the stress in others so negative emotions continue to cook in the background ready to explode into disease. There are emotional stresses, physical stresses and chemical stresses. Even gravity is a stress. Any impact from the environment can be seen as a stress.

Intense hydrogen therapy (and magnesium therapy) helps reduce the price we pay on a cellular level to the stress we carry around. It is not just the stress from increasing background radiation, heavy metals, antibiotics in our drinking water, fluoride, pharmaceutical drugs, food preservatives, food enhancers like MSG, chemotherapy, radiation testing and therapy, heavy metal exposure, pesticide residues in our food and vastly expanded exposure to cell phones, Wi-Fi and an enormous amount of cell towers and God knows what else that tears our cells down but the emotional and feeling world of people that is all messed up, contaminated by the civilizations and messes mankind has made for himself.

The mechanisms by which a cell die, that is, apoptosis, necrosis, pyroptosis, or autophagic cell death, often depends on its ability to cope with the conditions to which

it is exposed. The adaptive capacity of a cell ultimately determines its fate when it comes under stress. The strength or what we can call a cells adaptive capacity is directly related to nutritional sufficiency and proper cellular respiration that removes all toxins and wastes through the cell wall.

Cells can respond to stress in various ways ranging from the activation of survival pathways to the initiation of cell death that eventually eliminates damaged cells. Whether cells mount a protective or destructive stress response depends on many factors but the greatest would have to do with nutritional status. A healthy cell naturally chooses life but one that is already chronically stressed due to mineral and lipid deficiencies will have significantly less coping power, less resistance to stress. Other factors in calculating cellular resistance to stress are the nature and duration of the stress as well as the type of cells being affected.

The cell's initial response to a stressful stimulus is geared towards helping the cell to defend against and recover from the insult so it behoves us to maximize the cells initial defensive response and this both hydrogen and magnesium will do.

Magnesium and Cell Stress

The involvement of free radicals in tissue injury induced by magnesium deficiency causes an accumulation of oxidative products in heart, liver, kidney, skeletal muscle tissues and in red blood cells. Magnesium is a crucial factor in the natural self-cleansing and detoxification responses of the body. Magnesium protects cells from aluminum, mercury, lead, cadmium, beryllium and nickel, which explains why re-mineralization is so essential for heavy metal detoxification and chelation. Magnesium protects the cell against oxy-radical damage and assists in the absorption and metabolism of B vitamins, vitamin C and E, which are anti-oxidants important in cell protection.

Glutathione requires magnesium for its synthesis. Glutathione requires cysteine, glycine, ATP, and magnesium ions to form glutathione. Magnesium deficiency causes glutathione loss, which is not affordable because glutathione helps to defend the body against damage from cigarette smoking, exposure to radiation, cancer chemotherapy, and toxins such as alcohol and just about everything else. According to Dr. Russell Blaylock, low magnesium is associated with dramatic increases in free radical generation as well as glutathione depletion and this is vital since glutathione is one of the few antioxidant molecules known to neutralize mercury.

Magnesium was correctly called the beautiful medicine by the ancient Chinese for from a molecular biology point of view the metal is priceless. Most of the hydrogen tablets that make hydrogen water use magnesium as their most active ingredient. In the best tablets one gets 80 milligrams so if we take ten tabs a day we get 800 mgs, which is a healthy amount. This book on hydrogen and other medical gases does not pull into the magnesium port of wisdom overly much but one should be very clear when employing medical gases that magnesium should always be included. (For further information about magnesium please see the book *Transdermal Magnesium Therapy*.)

For oncologists it is important to know that magnesium also has a hand in protecting the DNA and is a key ion in cell division. Likewise pH control is a key to cellular survival and determines much of a cells adaptive capacity relative to stress. Iodine, sulphur,

selenium and even zinc are not far behind magnesium in relationship to increasing cell strength. Bottom line: Hydrogen and magnesium are like Batman and Robin, inseparable medical super heroes for cell stress and just about everything else.

Making Medical History

"The quest for a health is a natural human response to illness, but medical history provides plenty of reason to think twice before you try that miracle cure," writes Time Health. It is true; the cure for disease is health so the obvious key to recovery from cancer and other diseases is to employ life giving healthy substances not poisons that do much more harm than good.

Perhaps every great physician has had a great patient that makes him a great physician. I have had some interesting cases through the years and I even brought myself back from the edge of life back to reasonable health and high levels of creativity.

The most dramatic medical cases are the ones where death is imminent. In these cases when a patient is not only saved but brought back to shining health we can rejoice. When we achieve such medical heights and do it by employing solid medical science, using medical gases and necessary natural substances we have a chance of turning the practice of medicine in a new direction.

My Natural Allopathic protocol has attained an unheard of medical power to reach into the cells with life force that comes from a walls of oxygen, hydrogen and CO2 descending on the capillaries as they join up with magnesium, selenium, iodine and other powerful medicinals to do a job that is dependable and replicable.

A few weeks ago I published a story about Alison, a late stage cancer patient who has made a remarkable recovery, which is still in progress.

"I had a mastectomy back in 2010 at UC Davis Hospital, as I was diagnosed with DCIS on the left breast. They told me it would never ever come back! Surprise! It came back not only across the left breast but into the chest wall as well. I did all the chemo and the 33 rads suggested as treatment. Then about 9 months later UC Davis checking on a thyroid cyst saw enlarged lymph nodes in mediastinum. I went to Reno and did low dose chemo and the Xeloda. When I read Dr. Sircus' book, *Sodium Bicarbonate Rich Man's Poor Man's Cancer Treatment*, I immediately did more research on him and started using his full protocol. At the time I was walking, swimming, cooking, and doing everything a normal mother does. But within two weeks I discovered the cancer had already spread to my brain."

On the 9th of September 2017: "I spoke with Dr. Sircus because I could not keep food or water down and I began walking like a crab. After a few visits to the ER, I found out I had a tumour on the cerebellum that was blocking fluid from draining down the spinal cord. I urgently Skyped Dr. Sircus and informed him of the dire situation. He was very concerned about what was happening and quickly changed the protocol to help me be able to recover from this new development. Due to my critical condition, Dr. Sircus added hydrogen tablets along with a hydrogen inhaler. Every so slowly, I stopped vomiting, my walking began to stabilize, I gained weight, and I even began to feel normal."

Allison J.

On the 26th of September she wrote, "So I walk now! Eat like crazy, gained 10 pounds, and feel better every day. Don't drive yet but I walk in the neighbourhood. Not far. Have not thrown up. Feel stronger ever day! Just hope to keep going!"

On October the 4th she wrote, "I continued with the protocol having added the hydrogen tablets and hydrogen inhalation and within a week all the nausea, vomiting, crab walking, neck stiffness, brain fog faded and better my memory started returning. I had better skin color and even the whites of my nails are returning. My body is feeling so much stronger. When I switched up my protocol to include the hydrogen I was like a fish. My daughter had to stick with me while I was in the bathroom and dry me, cloth me, and walk with me. I was bedridden. I just can't believe the change in me with the hydrogen. I can now do things on my own when two weeks ago I felt like I was dying. I am walking in the neighbourhood, stationary cycling. I normally weight about 106 at 5 foot. So at the time of ER 84. Now back to 96. This is a whole turn around mentally, physically, and emotionally. My face was thin and drawn with dark circles, wrinkles and now my face is starting to fill in. The bruises under eyes are greatly improved.

On October the 10th she wrote, "I am feeling better each day, certainly more cognitive, better movement, more functional, more in the moments, more alive!"

On the 17th of October she wrote, “I am doing great! However, I was very bad today! The problem is I have gained too much weight for my clothing! I went shopping today with my friend because my pants are too small! I can't fit in my clothing anymore! Then, we went to lunch. I have been out all day enjoying myself. Happy now because I have clothes that fit!”

We Know Cancer Can Be Cured

Two years ago, before I even had heard about the miracles of molecular hydrogen I got a letter from another patient also on the verge of death. This patient reported, “Significant metastases in my spine, hips, ribs, neck, lymph nodes – and my PSA was 2,080,” I entitled my essay, ‘One foot in the grave when I found Dr. Sircus. He wrote, “I wanted to contact Dr. Sircus when I was completely healed and tell him my story. My PSA is now 2.1. If his protocol plus my work and the grace of God could get me off my death bed, and dancing all night with my family well maybe people should consider this wonderful protocol and try it.” I share these cases to show what is possible if people work hard enough doing the right things.

Allison is using the Breathslim, which is now going back to its original Russian name, the Frovlov device, 4 hours a day with the hydrogen. She says, “It is a lot of work slowing my breath down. However, I can feel my oxygen intake increase as well as lung capacity. Counting breaths now without using the Breathslim is 12 but it was 15 when I started.”

Both of these patients showed extraordinary will successfully and willfully doing the most difficult part of the Natural Allopathic protocol, which is breathing retraining. Another ground-breaking case, written up in my bestselling book *Sodium Bicarbonate*, was Vernon Johnston, who breathed his way back to life by using sodium bicarbonate perfectly while breathing consciously four hours a day.

Alison reported protocol:

20 drops of Selenium Tung Oil (Each drop a milligram)

6 to 8 droppers of iodine (I do not count the drops)

4 pounds to five of bicarbonate in baths

Half bag of magnesium flakes in bath

Mag spray on body and mouth

20,000 units of Vitamin D

Health protector (Vitamin C) 12

Vital Reaction Hydrogen tablets 12

Inhaler 4 hours

On the 27th of October Alison wrote:

I have no desire to nap anymore.

I have not used my asthma inhaler.

Cleaning house, feeding dogs, laundry

My nose used to be running all the time stopped.

Walking, driving, shopping, and getting frustrated that the kids for leaving messed.

Walking in the neighbourhood people look at me because the kids told their friends I was very sick so they are surprised I am walking around. They stop to tell me I look good.

Combination Hydrogen and Oxygen Testimony

“I started drinking hydrogen and oxygen (HydrOxy) water in 2005. Eventually in March of 2016, I started breathing HydrOxy for several hours each day while working at the computer. After several months, I felt rejuvenated by one year for every month that I inhaled the gas.

“I just had a very interesting thing happen to me. I was recently pounding down a steel post with an improvised post pounder and sprained my shoulder pretty bad. I couldn't lift my arm without severe pain. Then something amazing happened. My shoulder sprain healed in three days! I've never had a sprain heal that fast!”

- My eyesight has improved. I’ve worn glasses since 9 years old. I don’t wear glasses
anymore except when driving.
- My psoriasis is gone; no more thick white pealing skin on elbows, knees and feet. This
actually happened within three weeks of my starting to breathe HydrOxy
- My skin is smooth and supple, with age wrinkles gradually disappearing.
- My scars (I've had since childhood) seem to be disappearing.
- My 'age spots' are disappearing.
- My neuropathies are gone. I'm grateful to feel my left hand and shins again.
- My hair continues to darken (now salt and pepper instead of straight grey).
- My hair seems to be growing back (thickening and growing on my bald top).
- My tinnitus is still there but barely noticeable occasionally.”

- I’m losing fat and gaining muscle even without dedicated exercise.

He updated this in October 2017:
- My warts are gone (hand warts and planter’s wart)

- My hair is definitely growing back
- My constipation is gone
- My arthritis is gone
- I still haven't been sick (not even a sniffle) since 2005 (NO drugs or flu shots)
- I've lost 40 excess pounds (down to 180 from 220)
- My heart murmur is gone.

George Wiseman

Saving a Life with Hydrogen and Oxygen

This story took place in the hills of New Jersey, outside of New York City, on Sunday, August 28th, 2016 written by Ed Wunder.

After receiving an email that someone was in danger of death, the assistance of a hydrogen oxygen (HydrOxy) gas generator was offered to a man's wife, who happens to be a medical doctor. She accepted, and we arranged a time to bring the machine over.

10 hours were spent that day at that home. This man spent 9+ hours inhaling HydrOxy gas through a nasal cannula –and the most remarkable changes transpired during that time.

Upon arrival, he did in fact appear to be very close to death. I honestly thought I was too late to make a difference; his condition was that severe. He was ashen, largely unresponsive (in and out of consciousness), mouth-breathing, had started to have difficulty swallowing (a common occurrence with dying patients), and was not eating anything. His wife told me later that evening that when I arrived she had been thinking he wouldn't live another 24 hours.

I hooked him up to the HydrOxy with the nasal cannula right away, although his mouth-breathing gave me pause that he might not be getting the full benefit. We encouraged him to breath in through his nose and out through his mouth as much as possible. It wasn't long before I noticed that his breathing began to deepen. Gradually but perceptibly, color started to return to his cheeks and forehead. His wife and I watched him very closely, although her emotional involvement may have kept her from

observing the subtle changes I was beginning to notice – at one point she said she wasn't seeing much difference.

Only after he said he needed to use the toilet and propelled himself on a rolling chair to the bathroom (locomotion had been drastically limited for several days at this point) did she acknowledge there had been an obvious and undeniable turnaround — and she gave me a big hug and said "You saved his life!" He came out of the bathroom saying he wanted to go to bed and proceeded to head up the stairs by himself. Knowing his weakened condition, I was concerned he might fall and I encouraged his wife, momentarily frozen in disbelief by this drastic change in his, to accompany him in case he got wobbly.

Once she got him into bed, she asked to have him connected to the hydrogen gas again. As he continued breathing with the nasal cannula, his improvement was such that we actually felt comfortable asking the housekeeper to keep an eye on him while we went to get some supplies. As you might expect, we called the house several times while we were out, and we learned that he was not only doing well, he had gotten himself out of bed to use the bathroom again, and when he returned he had the presence of mind to re-install the nasal cannula himself!

Upon our return the color and tone of his skin – face, chest and body – was markedly better, his extremities were warm and he was quite lucid…even gave his wife a kiss. He was able to drink 8 oz. of soup broth, the first nourishment he had taken since I arrived.

By now his wife wanted to know if he could leave the inhaler on all night. I saw no reason why not, as long as she would be sleeping by his side.

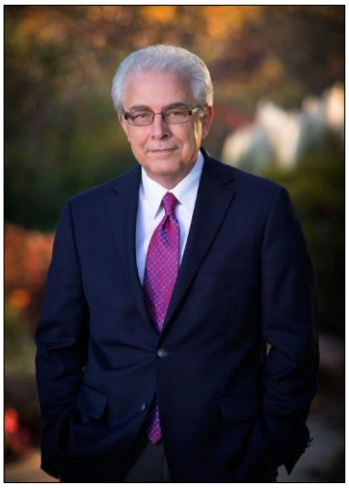
Nothing in the medical literature advises against breathing this gas for prolonged periods, and, in fact, actually argues that more is better. In medical studies conducted by doctors in Asia, Molecular Hydrogen seems to be one of those rare applications that fit the expression "more is better!" Knowing that he would be monitored by an MD, I could see no reason to curtail what was clearly not harming him. At that point, he had been inhaling Molecular Hydrogen for a good 8.5 hours almost continuously.

A wonderful thing happened that day. And thanks to a relatively unknown (in the United States) technology, this man was no longer at death's door — he was thriving.

Regrettably, this man has since passed away, but lived another 6 months, after he received help from the HydrOxy.

My experience with hydrogen tablets and inhaler

Paul Harris ND, PSc.D
Clinic Director Tulsa Natural Health Clinic
www.tulsanaturalclinic.com



I have been involved in natural-functional medicine for over 45 years. Most of my patients present with a history of chronic inflammation and multisystem diseases. Damage from free radicals causes inflammation; chronic inflammation, sometimes called persistent, low-grade inflammation, this happens when the body sends an inflammatory response to a perceived internal threat that does not require an inflammatory response. This inflammatory process is often associated with free radical damage and oxidative stress and may not cause pain, as some internal organs do not relay pain.

Two of the most destructive free radicals are *Peroxynitrite* and the *Hydroxyl Radical*. Peroxynitrite down regulates mitochondrial function and ATP production in the cell. The hydroxyl radical can damage virtually all types of macromolecules: carbohydrates, nucleic acids (mutations), lipids (lipid peroxidation), and amino acids. The hydroxyl radical has a very short *in vivo* half-life of approximately 10^{-9} seconds and a high reactivity. This makes it a very dangerous compound to the organism and significantly contributes to the symptoms and damage associated with chronic multisystem diseases.

With that said, when I was introduced to hydrogen inhaler and tablets I realized that this product was a perfect fit for my general patient population. I discovered that Molecular hydrogen (H2) is a selective antioxidant that targets only the most harmful peroxynitrite and hydroxyl radicals, but has no negative effect on useful free radicals such as hydrogen peroxide or nitric oxide.

Unfortunately, most other antioxidants are not as selective and indeed create imbalance in free radicals and antioxidants intracellularly, thus leading to more cellular damage.

Actually, molecular hydrogen converts these two *molecular terrorists* into water from within the cell nucleus. The result is simply…water.

My patients have reported significant clinical benefits after several weeks of drinking the hydrogen water 3 times daily and weekly treatments with the inhaler.

Clinical results in 5 patients.

Patient #1: 71 year old female (RN), presents with a diagnosis of RA, angioedema, Hashimoto's thyroiditis and osteoporosis. I have had her on a comprehensive nutritional intervention program for several months and the addition of the combination H2 treatments has made a significant difference in her clinical symptoms. Her thyroid antibody titers have fallen within the normal range, and her RA flare ups have calmed down as well. She is very pleased with the results and wants to continue taking the combined treatments indefinitely. She drinks 3 glasses of H2 water daily and receives 2 treatments per week for 60 minutes per session.

Patient #2: This patient is a 68 year old male who presented with brain fog, lack of endurance and afternoon fatigue. After 2 weeks of the combined H2 therapy he reports a marked increase in energy and no longer goes to sleep on the couch at 7:30 in the evening. The brain fog is also improving and seems to respond extremely well to the H2 inhalation treatments. He takes 1 tablet 4 times per day in 6 ounces of water and four 30 minute H2 inhalation treatments per week.

Patient #4: 52 year old male who presents with an anoxic brain injury secondary to a medical error. He is confined to a wheel chair and has extreme difficulty with verbal communication. He is also receiving the combination of Vital Reaction Tablets and Inhalation therapy twice per week. Over the course of 11 weeks, his wife (caretaker) reports that she is better able to transfer him from a sitting to a standing position. His memory has not improved yet but his task orientation has clearly show improvement over the past few weeks.

His wife also states that he is sleeping more soundly and waking one time during the night. Prior to H2 therapy he would wake up every 3 to 4 hours. She is considering purchasing a unit to use at home.

Patient #5: 35 year old female with a clinical presentation of chronic fatigue, severe brain fog and short term memory loss, epigastric pain with alternating constipation and diarrhea. I have successfully treated her with a vigorous detoxification and nutritional support regime. She recently came back in with a reoccurrence of some of her symptoms. We decided to begin the H2 tablet and inhalant treatment in addition to her current nutritional intervention program. Within 10 days she reported that her GI complaints had significantly calmed down, a noticeable difference in daytime energy levels and a gradual improvement in brain fog. She will continue to receive treatments for 90 days then we will reevaluate her case.

Darkfield Test by George Wiseman

One subject had Darkfield microscopy while inhaling HydrOxy through a nasal cannula. The hydrogen concentration in the inhaled was 8 - 9% by volume. Undiluted HydrOxy has a hydrogen concentration of 66.6%.

There were lots of sparkling lights in the plasma, and massive rouleaux formations – red blood cells (RBCs) stacked together like rolls of coins. Within minutes after stopping the inhalation of hydrogen gas the RBCs were single. Two other subjects had the same results with this test.

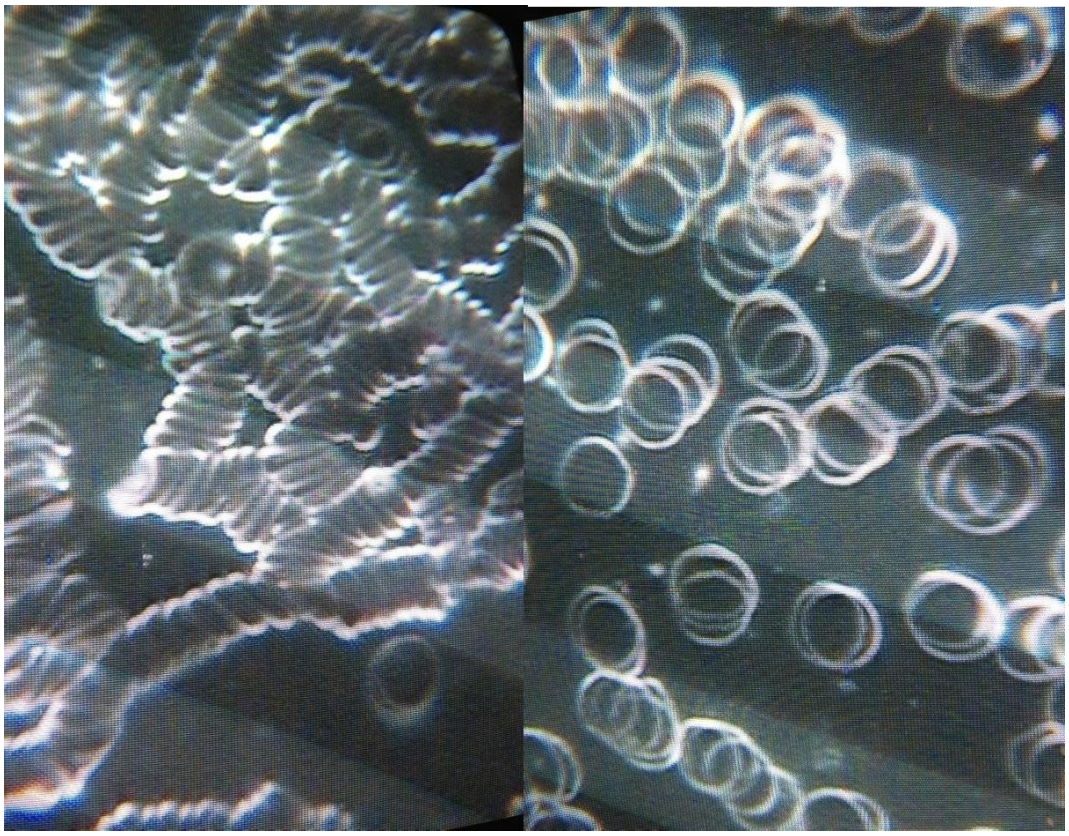


Fig.1a: Blood during BG inhalation Fig.1b: Blood 10 minutes after inhalation stopped

RBCs behave like colloids. They are kept apart by a difference in the electric potential between the RBCs and the blood plasma. This difference is called the zeta potential (ZP). RBCs have a negative electric charge on the outside. This attracts positive ions which surround the RBCs and keep them apart from each other. When ZP is high, a colloidal system is stable and colloids or RBCs remain apart, but when the ZP drops, the RBCs move closer together and may coagulate.

Tablets to Make Hydrogen Water

For about two years have been experimenting with different molecular hydrogen products and have recently the best, most convenient tablets are now available that make getting higher dosages of molecular hydrogen in your water possible.

None of the hydrogen water machines on the market can create hydrogen at the high levels that *Virtual Reaction* tablets can. Vital Reaction hydrogen tabs are exceptional in terms of hydrogen concentration. They provide far more hydrogen in the shortest amount of time. Moreover, it makes its hydrogen in an open container thus making it easier to mix with juices and just super easy in terms of convenience and effortlessness of use. As recently as April, one can read an essay on the exciting field of hydrogen medicine but already its recommendations are outdated.

The hydrogen product market is evolving rapidly. Originally, at the end of 2015 I wrote that one can have 2 ppm (2.0 mg/L) of hydrogen infused water by dropping an Active H2 tablet in a ½ liter bottle of water. Meghydrate is a hydrogen product that contains an abundance of negative hydrogen ions within a colloidal silica matrix. However, every hydrogen researcher has a lot of doubt about Meghydrate and the claims made about it.

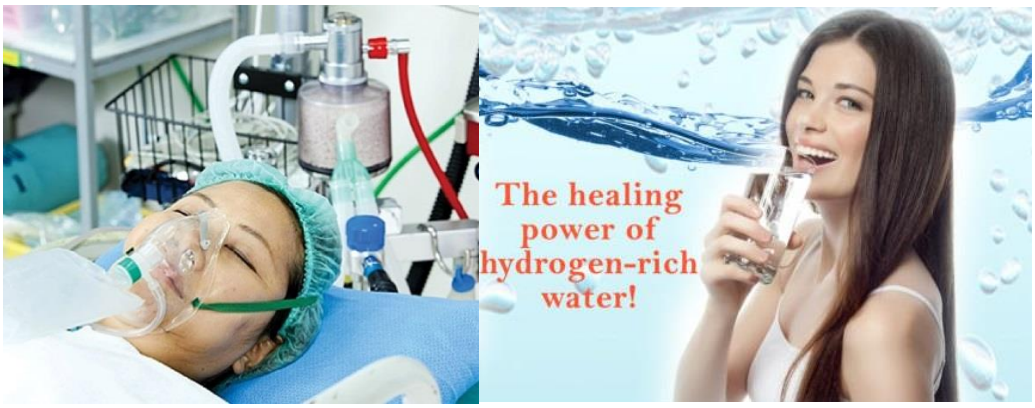
https://www.youtube.com/watch?v=h8JIYo5SXRY

Vital Reaction are the tablets that first time users should use even if one is to get a dedicated hydrogen gas and water machine to make your own hydrogen water. When one's medical needs are critical one wants to jump on as high a dose as possible of hydrogen. Vital Reaction is the clear winner in terms of highest hydrogen concentration.

"I've been using Vital Reaction tablets daily for the past 4 months and have been noticing multiple positive changes in my health. While I am generally in excellent health and take no prescription medications, I have been battling brain fog for the past several years. This was negatively impacting both my work, my academic efforts, and my personal life as I could not recall information quickly when needed. Since starting to drink hydrogen water, I have been able to think more clearly and my memory recall has definitely sharpened. I have also noticed that my energy level has been increased since using the tablets. I no longer get tired during the day and have also been sleeping more

soundly and not waking during the night. Finally, previous pain in my muscles has seemed to dissipate to the point I don't have any more body pain. I love my hydrogen water and am committed to continuing it as a part of my daily routine!" Dr. Leslie Nye

Hydrogen, Oxygen and CO2 Machines



A new age of medicine is upon us because hydrogen inhalation devices are now available, new to westerners but in wide use in Japan and China. There have been water machines that have put low amounts of hydrogen into one's drinking water, but none come close to the power of inhaled hydrogen and hydrogen taken with the newest generation of tablets. Hydrogen gas inhalation is the newest and most powerful therapeutic process that has come to the world of medicine.

A hydrogen machine is the most important purchase one can make if one is desperate to return to health when nothing else has worked. Conditions will improve fast if hydrogen and oxygen are fed continuously. Hydrogen is the ultimate warrior against death and disease. Need to recover from a dark hole of suffering? Mix hydrogen, oxygen and carbon dioxide together to regain command of life.

We can breathe hydrogen and run ourselves on it just like a hydrogen fuel cell car can. The same hydrogen that can blast rockets off into space and runs suns can be harnessed as a medicine, useful especially for late stage diseases when nothing else will work.

Hydrogen has a power, it is a force for life and its energies can be harnessed in the direst medical situations. Nobel Prize winner Albert Szentgyorgy said, drink or inhale "the one that produces the most Hydrogen Energy…. the Fuel of Life!"

It should be noted, before looking at the variety of units available, that all hydrogen inhalers will give one the beneficial medical power of hydrogen. The exceptional machines combine oxygen and hydrogen gases.

What to Expect from Hydrogen Treatments

- Detoxification
- Restores youthfulness
- Ulcers and sores healing
- Stronger and thicker hair
- Reduction in blood pressure
- Slows down free radical damage
- Lowers cholesterol levels

- Helps flush heavy metals from our bodies
- Helps in absorption of supplements
- Improved allergies and asthma conditions
- Better blood circulation
- Lower saturated fat levels

- Less body fatigue
- Faster recovery from diseases
- Improved peripheral circulation
- Reduces cellulite and wrinkles
- Improves memory in elderly
- Boosts brain power
- Reduces acidic condition
- Improved constipation and diarrhea conditions
- Improved blood glucose

The more serious one's condition the more one wants to center themselves on combining inhalation with hydrogen water. The direr your situation the more hydrogen and oxygen gas you need to breathe and the more you need to increase your CO2 levels in the blood.

Common testimonies using hydrogen include diminishing of numbness in extremities, reduction and elimination of oedema, improvement of sinus problems, more energy, improvements in blood sugar, diminishing need for insulin, feeling the difference after first treatments, feelings of refreshment and lighter on one's feet, improvements in skin conditions, improvements in stamina, feelings of changes in body and energy levels, Unstiffening of knees and ankles, stimulates youthful feelings, more alert, improvements in circulation, reduction of pain, headaches gone, reduction in need to take painkillers, skin appearance dramatically improved, stronger hair, spots on face reduced, reduction of constipation, healthier feelings, reduced feelings of depression, neck no longer stiff and full range of movement has been restored, nails become stronger, hair breakage minimalized and split ends stopped.

There are more than several methods to ingest or consume H2; inhaling H2 gas, drinking H2-dissolved water (H2-water) made with hydrogen machines, drinking hydrogen water using tablets that dissolve hydrogen into the water, injecting H2-dissolved saline (H2-saline), H2 baths, and dropping H2-saline into the eyes. Another distinct method includes a mixed gas of hydrogen and oxygen, which is very convenient. Transdermal use of hydrogen and CO2 can be very useful as are hydrogen IVs, which at this point are only being used in Japan and China.

Want to live longer? Recover from late stage cancer? Recover from neurological diseases? Need heavy-duty healing power? Need to recover from a dark hole of suffering? Mix hydrogen, oxygen and carbon dioxide together to gain command of life. All you need is a hydrogen inhaler that outputs both oxygen and hydrogen while it makes your hydrogen water.

Hydrogen Inhalers

The main barometer of hydrogen equipment is hydrogen concentration in terms of parts per million (ppm) and the hydrogen volume flow rate. Also, what hydrogen machines do with the oxygen created when water is split into its component parts, H2 and O2 is mission critical.

Most dedicated hydrogen inhalers simply vent the oxygen back into the air when patients could be breathing it for great benefit. Reminds me of the ignorance of sea salt farms throwing back into the ocean the precious magnesium chloride that is the final by-product of the evaporation process used to make salt from sea water.

When it comes to inhalation devices there are choices with the best selection depending in part, on where the hydrogen device will be used. At home units that combine oxygen with hydrogen and can make hydrogen water at the same time might be best but probably not appropriate for intensive care, emergency rooms or ambulances, but that conclusion remains to be seen.

On **https://hydroproducts.info/** all the major players in the hydrogen inhalation market. In our opinion, to the superior machines are the ones that combine oxygen and hydrogen gases.

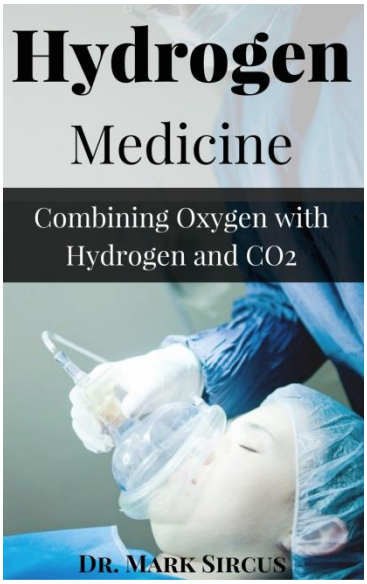
Prices range from a top of 8,500 dollars to as low as 2,500, and for an open (without a case) one can get a model for 1,997 dollars. Both the 2,500 and the 1,997 dollar units put out the mixed hydrogen and oxygen gases. Soon the less expensive machine will have a casing and the price will obviously go up.

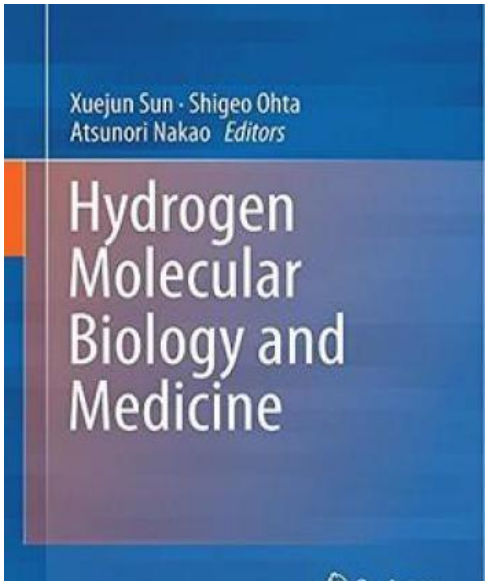
It is worthy to note that most of the research is done with pure hydrogen machines, though some specifically mention using hydrogen and oxygen. So far the mainstream is mostly using pure hydrogen. For those who go that route there are other oxygen therapies to augment hydrogen treatments. When it comes to treating and healing disease it is crazy to ignore oxygen and CO2. Cost aside, all hydrogen inhalers will work. The higher output machines mean less time is needed for therapy.

Special Note: All of my readers should be aware that they will receive 10 percent discount with this code. (MARSIR) for the Vital Reaction hydrogen tablets and most companies who make the inhalers will probably do the same.

To everyone who gets into hydrogen inhalation we will offer help to get started. Dr. Sircus will offer a free 15-minute consultation and participation in a group with other hydrogen inhalation users, so one can get feedback and support. Only request in return are testimonies for the second edition of *Hydrogen Medicine*.

Buy the Hydrogen Medicine book





Though my *Hydrogen Medicine* book is the first popular book on hydrogen medicine. *Hydrogen Molecular Biology and Medicine* is the first but it is written more for scientists and costs 29,99 a chapter and 100 dollars for the eBook, 150 dollars for it in print and is only 150 pages. *Hydrogen Medicine* will sell for 29,99 for the rest of the book. Below are the first parts of some of the chapters. *Hydrogen Medicine* will be available in the beginning of February.

Hydrogen the Ultimate Anti-Aging Medicine

There’s no single factor that contributes to longevity however, that does not stop us from wanting to know how to live longer with more health. Some medical scientists believe that we humans may have reached their maximum limits for height, lifespan and physical performance.

A recent review suggests humans have biological limitations, and that anthropogenic impacts on the environment -- including climate change -- could have a deleterious effect on these limits. The climate is turning colder, it is true, and pollution and radiation exposure keeps heading higher into the stratosphere so there was reason to despair until hydrogen came a long.

Hydrogen is not snake oil. Hydrogen runs the universe, cars, trucks, rockets and if taken in sufficient quantities will run your life for a few extra miles/decades. Scientists have a pipeline full of promising anti-ageing compounds just waiting for human trials but they are wasting time because hydrogen is at the frontier in the human battle against old-age.

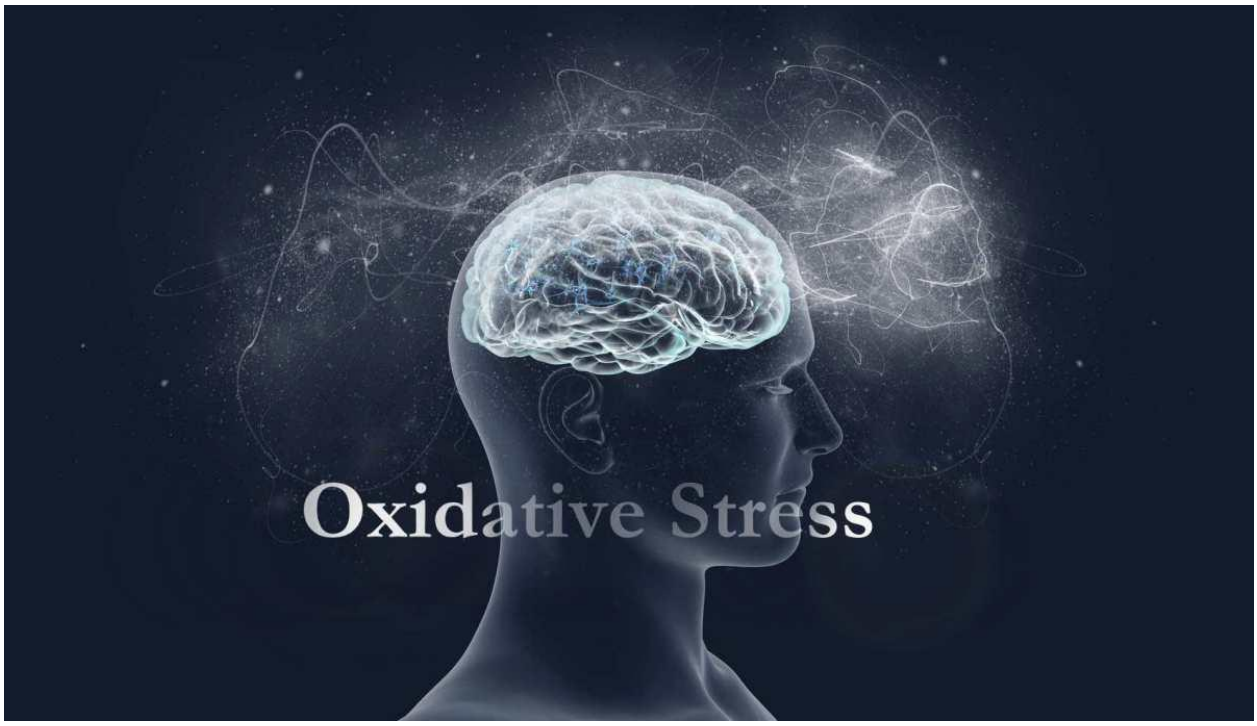
Less Food and Less Diabetes with Hydrogen

Hydrogen is vital for life, the most common element in the human body and a component of water, DNA and most other organic molecules. Macronutrients, such as carbohydrates, proteins and fats, contain hydrogen as part of the chemical structure. This means that every food contains some hydrogen.

Fruits and whole grains are healthy sources of carbohydrates, which in turn are sources of hydrogen. Carbohydrates, also called sugars, are molecules that contain carbon, hydrogen and oxygen. The chemical structure for glucose, the simple sugar your cells use to metabolize energy, has six atoms of carbon, 12 atoms of hydrogen and six atoms of oxygen.

Meat, poultry, fish, dairy and legumes are proteins made up of amino acids that are sources of hydrogen. The chemical structure of amino acids may differ, but all amino acids contain carbon, hydrogen, oxygen and nitrogen. Fats, also called lipids, are a type of macronutrient made up of carbon, hydrogen and oxygen.

Inflammation, Free Radical Damage, Oxidative Stress and Hydrogen



Since Dr. Denham Harman published his free-radical theory, there have been more than 300,000 research studies confirming that free radicals are the main cause of diseases and aging. Oxidative stress, caused by rivers of free radicals, is a plague on modern man. Whether it's the toxic pollution in the air you breath 24/7, the radiation your doctor exposes you to,[xvi] pharmaceutical medicines, chemotherapy, your cell phone constantly at your brain, or even your WI-FI and other EMF pollution generating devices, you expose yourself to oxidative stress,[xvii] which will drag you down into the pit of disease and cancer putting an end to your happiness, health and even life.

Oxidative stress has been associated with numerous health conditions including chronic fatigue syndrome, fibromyalgia, diabetes, Alzheimer's disease, anxiety, insomnia, cancer, and just about every disease you can imagine yet doctors seem to ignore this fact and work as hard as they can to increase your oxidative stress when they know we are already against the wall with toxins and stress. Imagine a patient, newly in remission from cancer, being exposed every three months to CAT or PET scans, which dramatically increase oxidative stress, just begging for the cancer to come back (or a new cancer to emerge) so they can treat the patient again.

Oxidative stress, directly or indirectly caused by chemotherapeutics is one of the underlying mechanisms of the toxicity of anticancer drugs in noncancerous tissues, including the heart and brain.[xviii] During cancer chemotherapy, oxidative stress-induced lipid peroxidation generates numerous electrophilic aldehydes that attack many cellular targets.[xix] Oxidative stress, generated by almost all prescribed drugs as they are metabolized, acts as a source of origin and progression of many dreadful diseases. Reactive metabolites formed during this process cause oxidative stress and can impair the function of drug metabolizing enzymes leading to toxicity.[xx]

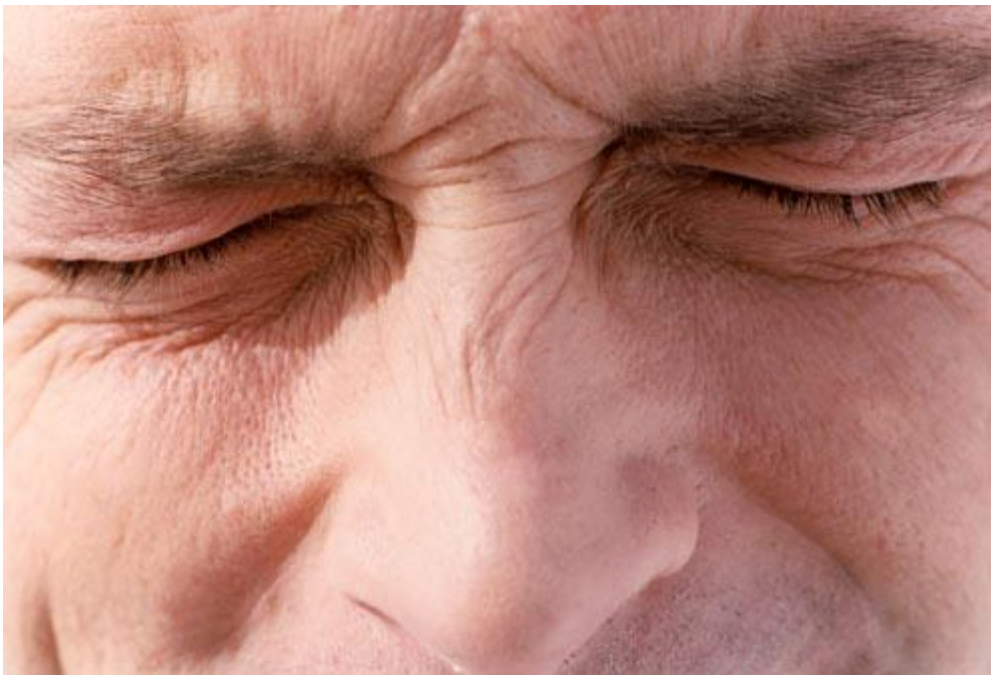
Perfect Mitochondrial Medicines

The Nobel Prize was awarded to Dr. Peter Mitchell in 1978 for his theory of chemiosmosis. According to this model of his, **Hydrogen is essential in the production of ATP** in the mitochondria, the source of all energy in the cells, and therefore the body. This works through hydrogen dehydrogenase, a flavoprotein catalyzing the conversion of NAD+ to NADH by molecular hydrogen (H2); H2 + NAD+ → H+ + NADH.

Treatment of mitochondrial disease was still in its infancy when hydrogen showed up offering us the best mitochondrial medicine there will ever be. Until now, aside from symptom-based management, treatment of mitochondrial disease focused only on maintaining optimal health, using preventive measures to mitigate symptom worsening during times of physiologic stress (such as infection, dehydration, or surgery), and avoiding mitochondrial toxins, which is not easy if you are under the care of a mainstream doctor.

An open-label trial of drinking 1.0 liter of hydrogen infused water (molecular hydrogen) per day over 12 weeks was performed on fourteen patients, five having progressive muscular dystrophy, four having polymyositis, dermatomyositis, and five having mitochondrial myopathies. **Drinking hydrogen water improved mitochondrial function in mitochondrial myopathies and reduced the inflammatory processes** in polymyositis and dermatomyositis.[xxi]

Treatment of Pain with Hydrogen Protocol



Whether it's caused by arthritis, migraines, fibromyalgia, or bad backs, chronic pain -- the kind that hangs on for weeks, months, or years can all change your life for the worse. Never ignore pain because that usually leads to it getting worse. Whatever the intensity or the cause, treatments usually can help if one chooses the right type of treatment. Problem is finding the right treatment that works to heal the underlying condition. Hydrogen is the right treatment for pain.

Neuropathic pain remains intractable and the development of new therapeutic strategies are urgently required. Accumulating evidence indicates that overproduction of oxidative stress is a key event in the pathogenesis of neuropathic pain. In one animal study hydrogen is shown to be a novel therapeutic method against neuropathic pain: drinking water containing molecular hydrogen (H2) as antioxidant.

When mice were allowed to drink water containing hydrogen at a saturated level ad libitum after ligation, both allodynia and hyperalgesia were alleviated. These symptoms were also alleviated when hydrogen was administered only for the induction phase (from day 0 to 4 after ligation).

Hydrogen & Cancer

Hydrogen is extremely good news for us humans but do not be surprised if medical organizations resist the hydrogen story, which in the end can make us more like rocket men. Much better than being sick men, women and children dependent on an aggressive form of medicine that does more harm than good. Going through life and facing disease is just going to be easier if we can pump ourselves up with hydrogen.

Oncologists are not quite ready to grasp the importance of the primary gasses in either avoiding cancer or treating it. In my *Sodium Bicarbonate* book I introduced the practice of using the least expensive safest medicine in the world to treat cancer because it gives one control over carbon dioxide levels in the body's fluids, which helps oxygen delivery. In my book *Anti-Inflammatory Oxygen Therapy* I sustained the use of oxygen therapy to rid the body of cancer.

Hydrogen Medicine is where I bring it all together. When the gases are balanced and present in sufficient supply the human body will hum with health as long as the necessary minerals and other nutrients are present. Hydrogen is an incredible gift to humanity and will save the world of medicine by giving it something that is much more helpful than anything the pharmaceutical companies can come up with.

Anti-Aging & Anti- Alzheimer's Hydrogen & Photobiomodulation Protocol

It is a dream world for the anti-aging crowd. We now have the knowledge and the technology to extend our lives, enough medical firepower to press back against the hard edge of time. However, time is closing in on us, pressing us faster into disease and premature death. This is truer for city dwellers who are breathing in more manmade poisonous pollution. Urban air pollution affects countries around the world, leading to premature aging, a wide range of health conditions, and early death.

Prospects for long-term happiness, health and a prolonged existence on earth are weakening making it essential that we use our intelligence, new medical devices and essential medicinals that clearly can help us have a better, longer and healthier life. Life extension is not just about how long one lives but how well and healthy one stays. If our will to live is strong, we can gather our wits to defeat aging, disease and even death. However, not by the methods being preached by the medical establishment.

Fear of Losing our Minds

One of the biggest fears that many of us have is the dread of losing our minds as we age. Some fear this more than death itself because being trapped in a body that you no longer control, unable to perform the most basic human acts or communicate with those you love—sometimes for many years—is an entirely different kind of suffering. Imagine if your notion of who you are, who your family is, or what you just did a few minutes ago just slips away.

Revolutionary Treatment for Autism

Intensive Application of Hydrogen Gas and Water

There is a treatment that people are only hinting at in the autism community and that is the use of hydrogen water. No one however has stepped out and said exactly how to use hydrogen to help autistic sufferers in a prompt way.

The treatment I am going to recommend is the same treatment you would give a person on deaths door, after having a heart attack, or suffering from very late stage cancer. Meaning an intense treatment that in a few days should show noticeable results.

One needs to treat with hydrogen gas and hydrogen water **administered intensely**. You plug anyone into a hydrogen gas machine and keep them on it for hours, meanwhile drinking all ones water laced with hydrogen. This treatment is as good as it gets in the world of medicine and if one adds oxygen to the mix then the treatment gets even stronger. And if one increases carbon dioxide/bicarbonate levels in the blood things one reaches for mastery of life's necessary gases.

Revolution in Intensive Care Medicine

Emergency Room Medicines for Chronic and Acute Diseases

Sepsis, a multiple organ dysfunction syndrome, is the leading cause of death in critically ill patients. Hydrogen gas inhalation significantly improved the survival rate and organ damage of septic mice with moderate or severe cecal ligation and puncture by reducing levels of early and late pro-inflammatory cytokines in serum and tissues.[xxii]

Sepsis, a systematic inflammatory response to infection, is one of the most serious diseases in ICU. Although comprehensive therapy has been developed for it, sepsis is still associated with high morbidity and mortality.

Hydrogen's protective effect on sepsis has been proved by biopsy, levels of inflammatory factors/anti-inflammatory factors, oxidative stress reductions, behavioral experiment, and other related indicators of organ function. Molecular hydrogen therapy is able to significantly reduce the release of inflammatory factors and oxidative stress injury thereby reducing damage of various organ functions that are so common with sepsis.[xxiii]

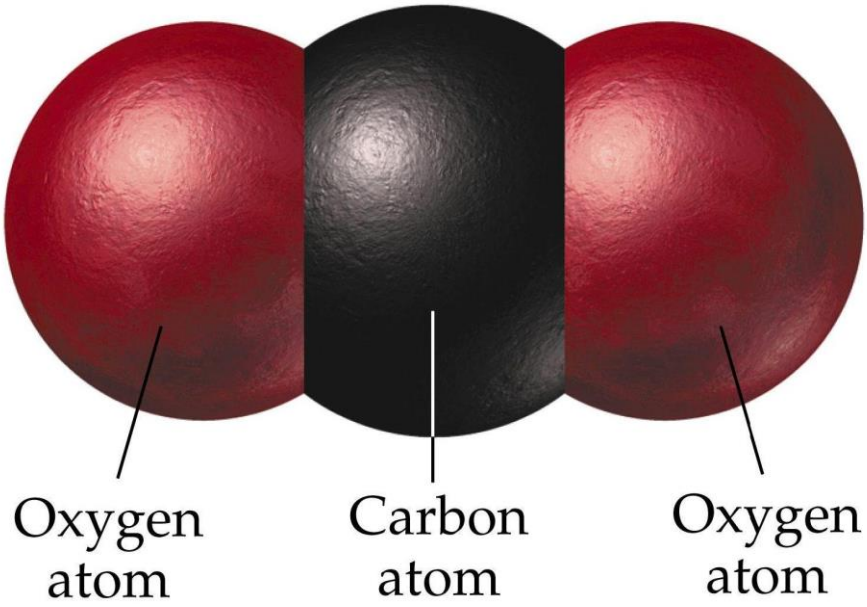
Inflammation, Oxygen, CO2 and Breathing

If the level of carbon dioxide in the blood is lower than normal, that leads to difficulties in releasing oxygen from haemoglobin. According to the Verigo-Bohr effect, a CO2 deficit caused by over-breathing leads to oxygen starvation in the cells of the body. This state is known as hypoxia (oxygen deficiency) and it negatively affects the nervous system.

The complicated world of oxygen, carbon dioxide, and tissue and tumour pH are important areas because our body simply cannot fight disease if its pH is not properly balanced and consequently the oxygen-carrying capacity of our cells becomes compromised. It's really simple—higher pH conditions lead to higher O2 levels and this results in oxygen being delivered to where it is needed.

The key to oxygen is not more oxygen but more carbon dioxide, which is a nutritious gas, not a poison. Doctors at the Department of Anaesthesia and Medical-Surgical Intensive Care Unit, Toronto General Hospital in Ontario, Canada say that, "Accumulating clinical and basic scientific evidence points to an **active role for carbon dioxide in organ injury**, in which raised concentrations of carbon dioxide are protective and low concentrations are injurious."

The Oxygen Carbon Dioxide Connection



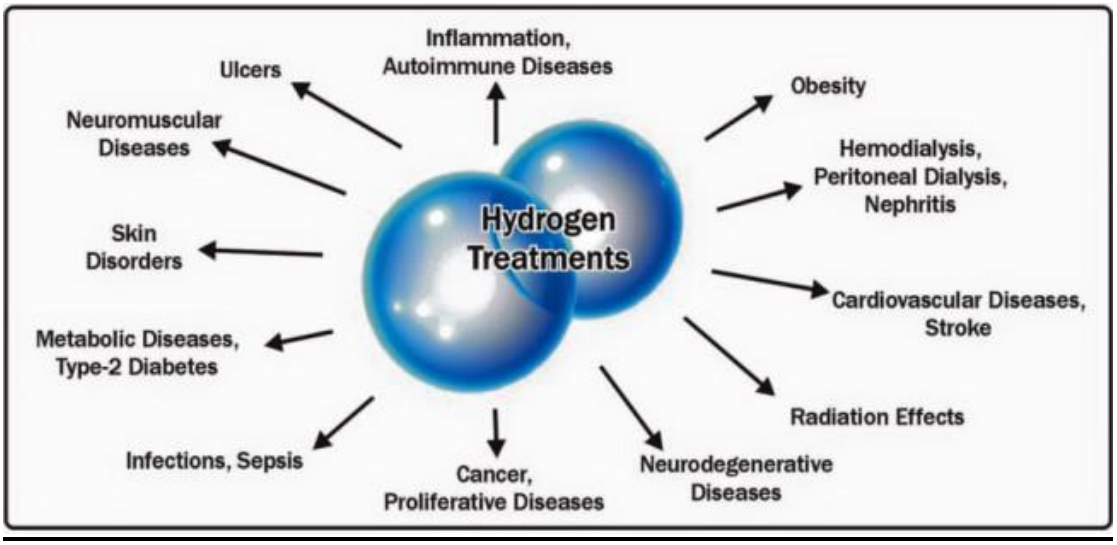
Most people have unhealthy breathing habits. They hold their breath or breathe high in the chest or in a shallow, irregular manner. These patterns have been unconsciously adopted, accidentally formed, or emotionally impressed.

Certain “typical” breathing patterns actually trigger physiological and psychological stress and anxiety reactions. Babies know how to breathe and you can see their belly expand as the diaphragm moves down. Adults breathe more through expanding their chest cavity and it takes training and discipline to return to more natural breathing patterns that allow for full oxygenation.

A lack of carbon dioxide is harmful though many climate hysterics are running around screaming that we have too much and should put a tax on it. Carbon dioxide is as fundamental a component of living matter as is oxygen and if you do not agree, go ask the plants! When people have bicarbonate deficiencies (acid conditions, which most people develop as they age), they have carbon dioxide deficiencies, which translate into oxygen deficiencies.

If a carbon dioxide deficiency continues for a long time then it causes diseases, ageing and even cancer because oxygen is not being delivered properly to tissues. Ancient forms of medicine knew that for increased vitality and freedom from disease good habits of breathing must be formed. They knew that poor breathing reduces our vitality and opens the door to disease.

Hydrogen Dosages



Several doctors are experiencing good results - both personally and with their patients offering 30-60 minute sessions 2-3 times a week with the inhalation machine and then working with the VR hydrogen tablets for their daily dose when they are not breathing H2. The key to understanding hydrogen supplementation dosages though is it is to be taken over the long term not for just a month and you're 'cured' type of mentality.

I suggest 1 or 2 tabs on an empty stomach morning, noon and night for best results. Hydrogen dosages should be compared to taking daily vitamins meaning it should be incorporated in daily routine that becomes permanent.

I would suggest this or even higher dosages for anyone seriously ill with the flu or any chronic disease. When one needs to dig out of a deep dark pit of medical despair hydrogen will provide the muscle along with high dosages of magnesium (80 mg included with every tablet) and just the right amount of bicarbonate to raise pH to a more alkaline state. Of course, this all changes if one is using a hydrogen inhaler which enables suffering patients to engage in hydrogen at vastly higher dosages.

Dehydration and Hydrogen

Dehydration is one of the most
overlooked and basic causes of disease.

Molecular hydrogen medicine promotes fully hydration because hydrogen combines with the hydroxl oxidant and turns it into water. This is important all on its own because dehydration causes inflammation! Cancer and inflammation are bedfellows and we can easily understand why inflammation is linked to chronic dehydration.

When we think of hydration, we think of water. Oxygen and water are widely available but hydrogen is not freely available anywhere in Nature. Hydrogen is almost always 'bound' to other elements. When the body calls for water, it is hydrogen bonded to oxygen it wants. Most of the symptoms of disease and aging are, in one way or another, accompanied by hydrogen deficiency, which leads to oxidative stress as well as dehydration. **Hydrogen hydrates by turning the worst offending free radicals into water**.

Oxygen Deficiency

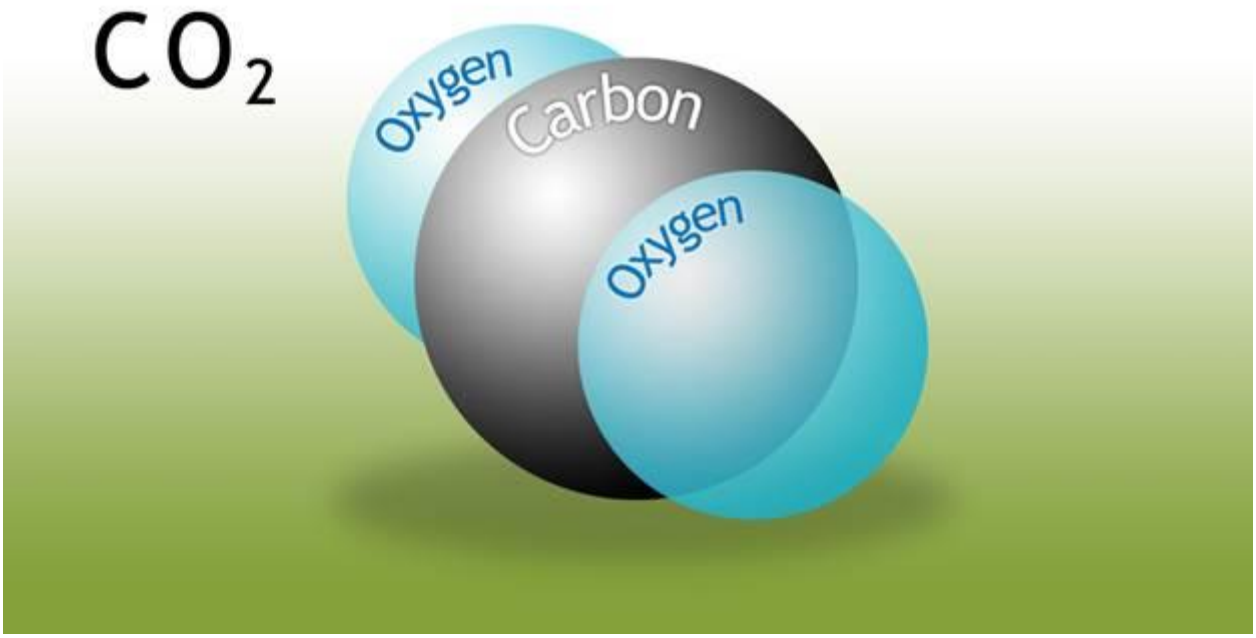
These days many people do not have enough oxygen in their bodies to support the daily functions of all our internal and external organs. Many of us are deficient for a wide variety of reasons. When we learn that **each stressful event in our life can drop our oxygen score drastically** we can begin to understand how central to successful treatment oxygen can be.

Severe oxygen deficiency is called hypoxia, often referred to as oxygen starvation. This affliction invites cardiac trouble by over-stimulating the sympathetic nervous system and raising the heart rate.

Symptoms of Oxygen Deficiency:

- Increased Infections
- Tumors
- Sexual dysfunction
- Irrational behavior
- Irritability
- Muscle aches and pains
- Lung insufficiencies
- Dizziness
- Depression
- Headaches
- General body weakness
- Weight Gain
- Cancer and Disease
- Fatigue and Sleep Disorders
- Suppression of the Immune System
- Circulation Problems
- Poor Digestion
- Memory Loss & Poor Concentration
- Hangovers

Bicarbonate and CO2



Bicarbonate and CO2 are profoundly important for human health. Both are necessary for the successful practice of medicine and the treatment of cancer yet few understand the importance of both. Even a so-called health expert like Sang Whang, who is supposed to be an expert at pH regulation, seems not to understand.

Whang says, in a long promotional essay pushing a product, “Consuming sodium bicarbonate (baking soda) does not add bicarbonates to the blood because hydrochloric acid breaks up sodium bicarbonates into water, carbon dioxide and sodium salt in the stomach. It is exactly like ingesting carbonic acid and sodium salt.” The truth though is bicarbonates enter the bloodstream "only" when the stomach produces hydrochloric acid. What Whang failed to see is that the **CO2 is going into the blood in the form of bicarbonate.**

> Baking soda (sodium bicarbonate) immediately reacts when it mixes with stomach acid. **NaHCO(3) + HCl —> NaCl + H(2)0 + CO(2)**. That is sodium bicarbonate + stomach acid yields salt + water + carbon dioxide.

Treatments for Medical & Other Radiation Exposure and Cancer

Molecular hydrogen is the newest and one of the most direct treatments for radiation and cancer because it will protect the body from the oxidative stress caused by radiation and the cancer that sooner or later results from radiation exposure. This has special meaning for frequent air passengers who are exposed at high altitudes to gamma rays, people who live near nuclear plants, people who are exposed by their doctors to PET and CAT scans, and many millions of people on the west coast of North America because of their radiation exposure from Fukushima.[xxiv] Ionizing radiation (IR) is a well-known carcinogen for various human tissues and a complete carcinogen that is able to both initiate and promote tumor progression.

Exercise with Oxygen Therapy

The new mask makes breathing in massive amounts of oxygen easier. The Max O2 system offers not only the highest quality oxygen reservoir, but also a **patented rib cage that puts pressure on the bag to force the air out and into this mask** for a remarkable increase in oxygen flow and ease of use. Also the reservoir bag does not leak like a sieve.

From the company we read, “it is all about the mask:”

> We have created the best oxygen bag in the industry. Its commercial grade with positive pressure, but that was not good enough. Our bag and mask had to be the best. The traditional blue mask has been used by our competitors and us. The problem with this mask is the valves are hard to open as you breathe in and exhale. In addition, they are "one size fits

all." Maxx 02 includes an industry first unrestricted high-flow Easy Breathe™ system. The flow opening for oxygen is twice the size of the leading mask. It feels like you are breathing without a mask and it is available in three sizes for superior fit. In fact, we include the older style mask at no charge so you can see the difference yourself. It is easy to tell you it is better, but we went one-step further by letting you try for yourself.

Anti-Inflammatory Oxygen Therapy is the process of avalanching down on the cells a massive amount of oxygen—in other words—a massive amount of life force. In the never-ending fight against cancer as well as the aging process, we have a therapy that gives us the edge. Some doctors actually think one should avoid healthy levels of oxygen

The therapy is called EWOT (Exercise with Oxygen Therapy) or originally Oxygen Multi Step Therapy, which was dramatically improved with the invention and use of the air reservoir bag. In fifteen minutes, one can blow the cell's doors open allowing them to detoxify as they gulp down the oxygen. The breakthrough is that it actually returns vascular age back to youthful levels.

One of the reasons exercise is so healthy and important for cancer patients is that it creates massive amounts of CO2. Exercise is good medicine. Several studies have found that physical activity can lower a woman's risk for breast cancer, and some studies found that the most active women have about a 25% lower chance of developing the disease than the least active women. "Exercise is one of the best things women can do for themselves," says Dr. Ann Partridge, director of the Program for Young Women with Breast Cancer at Dana-Farber Cancer Institute.

Anti-Inflammatory Oxygen Therapy consists of two distinct therapies—exercise and oxygen that are brought together for maximum effect. Breathing in concentrated oxygen while exercising makes the exercising easier and that is good news for patients suffering from long-term chronic disease.

Oxygen Helps Defeat Cancer

Dr. Dominic D'Agostino, a researcher and assistant professor with the University of South Florida Morsani College of Medicine, said "cancer is starved" by eating a diet that is restricted in carbohydrates but high in certain fats. The patient then receives hyperbaric chamber treatments, in which oxygen has a further toxic effect on the cancer cells, explaining a possible one-two punch to knock out cancer.

D'Agostino began research nine years ago involving metabolic therapy and hyperbaric oxygen to help Navy SEAL divers avoid seizures from oxygen toxicity. A 10-year-old boy with a cancerous brain tumor who had already received a battery of traditional conventional radiation therapy has gotten positive results from this. The youth responded "remarkably" to the combination of diet and hyperbaric treatment.

Cancer, Stress and Hydrogen

It **is difficult for a person to understand one's own internal stress level.** This is why a stroke or heart attack happens so suddenly and unexpectedly. Molecular hydrogen is

the perfect molecule to help us deal with stress, and it can be used over long periods, even a lifetime of daily use, for some deep stresses never leave some people so they need long term answers. It is good to understand stress deeply and it is good to know what one can do about it.

A fifth of cancer patients experience post-traumatic stress disorder (PTSD), and one-third of these still had consistent or worsening PTSD four years after diagnosis. Stress is one of the main causes of cancer so it is not only the toxic exposure and resultant oxidative stress that leads to reoccurring cancer; it is also the stress of cancer treatments and having to relate to oncologists, who are not among the most pleasant people to have to deal with.

Tyler W. LeBaron of the Molecular Hydrogen Foundation adds his input for those battling stress. "We recently used an excellent stress model in mice to mimic the effects of acute and chronic stress. Our results, published in *Nature*, suggest that **inhalation of molecular hydrogen was effective at reducing the anxiety and depressive-like behaviour caused from too much stress**."

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[iii] "At the end of the 19th century, scientists Bohr and Verigo discovered what seemed a strange law: A decreased level of carbon dioxide in the blood leads to decreased oxygen supply to the cells in the body, including the brain, heart, kidneys, etc. Carbon dioxide (CO2) was found to be responsible for the bond between oxygen and haemoglobin." – Dr. Alina Vasiljeva and Dr. David Nias. The Bohr Effect was first introduced, describing the oxygen-binding affinity of the hemoglobin as inversely proportional to pH and the concentration of carbon dioxide. In practice, this means that if the carbon dioxide concentration increases somewhere in the body, the hemoglobin molecule will bind to oxygen with lower affinity; therefore, a larger amount of oxygen is released to the area concerned.

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